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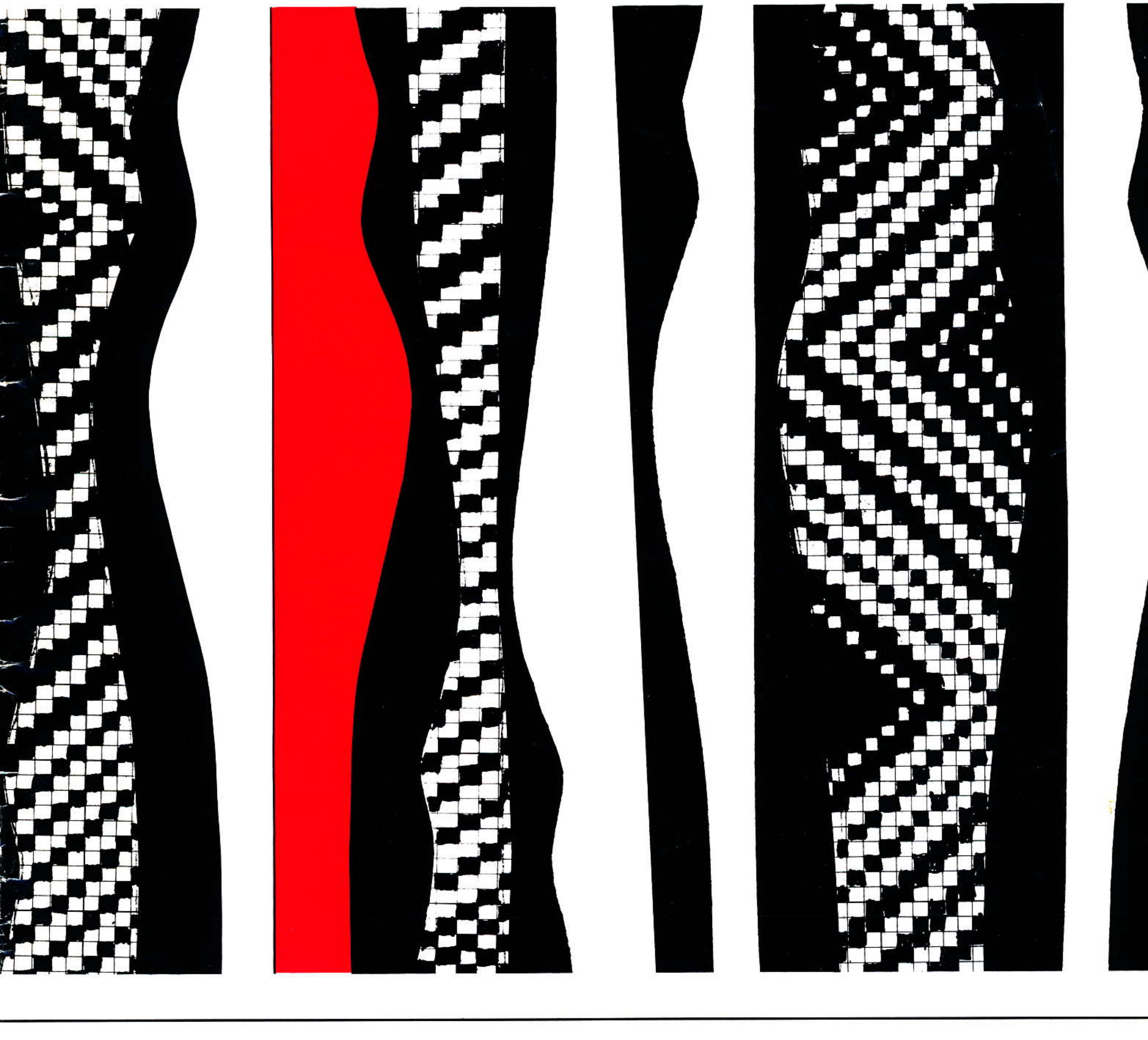

Clothing and Textiles

Les vêtements et les textiles

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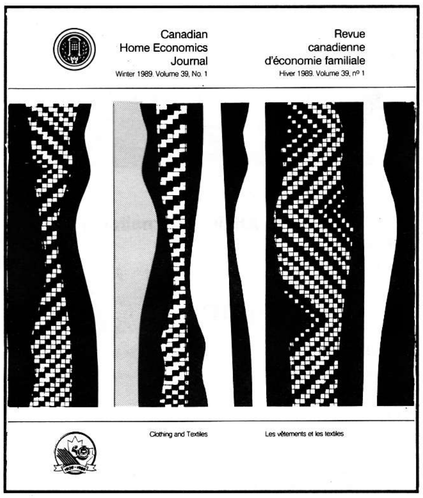
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Clothing and Textiles
Les vêtements et les textiles

By Mary Celestino, MA, MFA

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L'Association d'économie familiale est l'organisme professionnel national regroupant les personnes qui travaillent ou sont diplômées en études de la famille ou du consommateur, en alimentation, nutrition, économie familiale et écologie humaine. La mission de l'association est de renforcer la profession et de promouvoir une plus grande qualité de la vie pour les particuliers et les familles au Canada et le monde en voie de développement.

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A Team Approach to Special Needs Garment Design

Janet M. Menec

Abstract

Clothing and textiles specialists have a valuable contribution to make in the rehabilitation program of a disabled person. This article describes a collaborative project involving a textiles and clothing specialist, an occupational therapist, and a wheelchair-bound disabled woman to design and construct an apron, so as to facilitate independence in daily living for the disabled woman.

Résumé

Les spécialistes du vêtement et du textile peuvent contribuer de façon importante au programme de rééducation des personnes handicapées. Cet article décrit un projet de collaboration entre un spécialiste en vétements et textile, un ergothérapeute et une femme confinée à un fauteuil roulant; ensemble, ils conçoivent et fabriquent un tablier visant à favoriser l'indépendance de la femme au cours de ses activités quotidiennes.

Clothing makes an important contribution either in a positive or negative way to one's feelings of self-esteem and confidence. Positive feelings about oneself are especially crucial to a handicapped individual's progress in rehabilitation; heightened feelings of self resulting from enhanced independence in dressing foster confidence (Ahrbeck and Friend, 1976). Clothing design for people with special needs has long been a challenge and an interest to health care workers as well as textiles and clothing specialists. Newton (1976) notes that

> rehabilitation has been defined as an individualized process in which the disabled person, professionals and others seek to minimize the disability and to facilitate the realization of the maximum potential of the handicapped individual (p. 22).

Clearly, the rehabilitation program for a disabled individual can benefit from the expertise of many specialists, those trained specifically in health care and those specialists in other disciplines such as textiles and clothing (Ahrbeck et al, 1976; White and Dallas, 1977). A textiles and clothing specialist offers expertise in fabric selection, clothing design, construction, and fit analysis. An occupational therapist can assess the handicapped individual's abilities and needs in terms of dressing. Together with the disabled person, the textiles and clothing specialist and the occupational therapist can work to solve clothing and dressing difficulties. This cooperative team can provide the disabled person with fashionable, functional clothing that fits well, promotes independence in dressing, is easy to maintain and conceals the disability as much as possible. In no way does the clothing need to be

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Janet M. Menec, BHEc (1979, Man), MSc (1983, Man), Assistant Professor, Clothing and Textiles, University of Manitoba.

specialized; specialized clothing would serve to call attention to the disability and further separate the handicapped person from the mainstream (Kefgen and Touchie-Specht, 1986; Kernaleguen, 1978).

Considerable attention has been given to adapting ready-to-wear garments and designing fashionable garments with inconspicuous features so as to achieve a good fit and permit independence in dressing. Kernaleguen (1978) notes that, first and foremost, clothing of the handicapped should promote independence.

The Goal of Independence

Independence in dressing incites positive feelings of self esteem and may contribute to independence in other aspects of daily living. In some instances, independence may be achieved at the expense of fashion. However, any resulting loss of fashionability may not be considered significant if the garment is to be worn for specialized activities within the confines of one's own home.

Independence was the goal of a young woman confined to a wheelchair due to cerebral palsy. Catherine was living at an interim residence for physically disabled young adults in Winnipeg. The residence serves to assist handicapped individuals in gaining independence in apartment living. Residents learn household management skills and how to use various self-help devices. After a period of time, the disabled person is prepared to move into the community and live on his/her own.

While living at this residence it became clear to Catherine and the staff occupational therapist that cooking in the kitchen was a hurdle that posed a serious challenge. Catherine's cerebral palsy confined her to a wheelchair; reaching the controls and back elements of the stove was risky. Additionally, Catherine's limited strength sometimes resulted in hot liquids being spilled and scalding her arms and/or legs. It was determined that some sort of protective apron was needed for Catherine to be independent in the kitchen. These needs defined, the occupational therapist contacted the author.

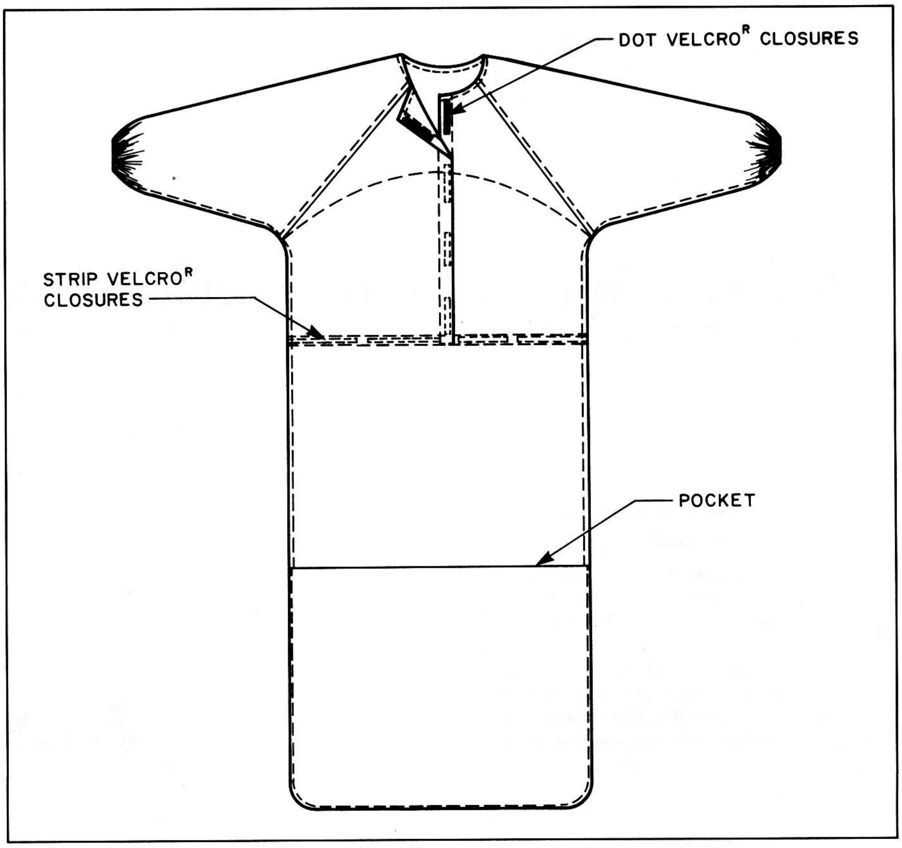

Figure 1. Front view of apron.

Performance Requirements

Shannon's (1987) functional design technique was used to ascertain the specific requirements of the apron. Initial discussion with the occupational therapist led to the identification of five performance requirements of the apron. It was necessary that the apron provide Catherine with

1. protection from hot elements over which her arms might drag,
2. protection from hot liquids that might spill down her legs,
3. independence in terms of dressing; ease of putting on and taking off,
4. comfort; freedom of movement,
5. easy care features.

Fabric Selection

This selection of performance requirements constituted a demanding challenge in terms of fabric selection and garment design. With respect to the former, four fabric properties were desirable, namely, fire retardance, waterproofness, vapor permeability to assist in body comfort, and ease of care. It was apparent that no single fabric currently available on the home sewing market could satisfy all of these requirements. Instead, it was believed that more than one fabric, each displaying some of the desired properties could be sandwiched and used as a composite for the apron. Two fabrics were selected. One was a plain weave Kynol® novoloid fabric that displays outstanding flame retardant properties. Kynol® will not support a flame and is classified as a nonflammable fiber (Sagar, 1986). The Kynol® weighted 165 g/m^2. The second fabric was a Dermoflex® polyurethane microporous film laminated to a polyester/cotton rib weave. Total weight of the laminated structure was 140 g/m^2. This laminate was chosen because of its unique combination of water resistance and vapor transmission properties. As a microporous film, Dermoflex® does not permit liquids to penetrate yet does allow moisture vapour to escape. Hence, it offers protection against spilt liquids and also contributes to wearer comfort. The Kynol® fabric serves as the outermost layer of the apron and the Dermoflex® fabric is immediately beneath with the polyester/cotton side next to the wearer's clothes. Both fabrics can be successfully laundered.

Apron Design

Design of the apron necessitated consideration of the five performance requirements identified earlier. The resulting design is a two-piece apron as illustrated in Figure 1.

The two-piece design facilitates maintenance; each piece can be laundered as necessary. The bodice has a lowered jewel neckline and a centre front opening fastened with Velcro® closures. Long raglan sleeves protect the arms and provide freedom of movement. Additionally, raglan sleeves are relatively easy to put on and take off. Sleeve hems are elasticized to give a snug fit yet eliminate the need for a cuff and fastener. The bodice back is partial; it measures 15 cm at center back and tapers over to the bottom of the armholes. There is an inverted pleat at centre back for freedom of movement. The lap portion of the apron is separate and fastens to the front bodice with Velcro® strips. It extends to the feet and contains a deep pocket at the hem to catch spilt liquids or foodstuffs. All seams are reinforced with topstitching.

Catherine has been using this apron for over a year and has found it to be quite satisfactory. The added independence in the kitchen has facilitated a move into an apartment of her own.

Participation of Clothing and Textiles Department

Members of the Clothing and Textiles Department at the University of Manitoba continue an advisory role with health care specialists in meeting specific clothing challenges for disabled people. This team approach to one aspect of the rehabilitation program benefits all participants; not only does the disabled person and occupational therapist receive valuable assistance but the cooperative experiences of the clothing and textiles staff translate into practical lessons in the classroom.

Students who are interested in garment design for special needs may find a rewarding career as independent consultants in rehabilitation health care. These students are encouraged to supplement their textiles and clothing expertise with knowledge of human anatomy and biomechanics as well as practical experience in working with disabled individuals. □

References

Ahrbeck, E., and Friend, S. (1976). Clothing — an asset or liability? Designing for special needs. *Rehabilitation Literature*, 37(10), 295-296.

Kefgen, M. and Touchie-Specht, P. (1986). *Individuality in clothing slection and personal appearance* (4th ed.). New York: Macmillan Publishing Company.

Kernaleguen, A. (1978). *Clothing designs for the handicapped.* Edmonton: The University of Alberta Press.

Newton, A. (1976). Clothing: A positive part of the rehabilitation process. *Journal of Rehabilitation*, 42(5), 18-22.

Sagar, A.J.G. (1986). Protection against flame and heat using man-made fibers. *Textiles*, 15(1), 2-9.

Shannon, E. (1987). Apparel's new role of function and comfort. *Canadian Home Economics Journal*, 37(1), 12-15.

White, L.W., and Dallas, M.J. (1977). Clothing adaptations: The occupational therapist and the clothing designer collaborate. *The American Journal of Occupational Therapy*, 31(2), 90-94.

A Primer on Public Policy — Striving for a Home Economics Initiative

Sue McGregor

Abstract

This paper is an attempt to present an information package, a primer on public policy, so as to stimulate and facilitate a home economics initiative to influence public policy formation, implementation, and evaluation. It is based on the premise that we cannot assume that all Canadian home economists are familiar with the Canadian policy process and that the potential of home economists as effective political participants can be enhanced if they possess basic knowledge about the policy process.

Résumé

Cet article se veut une tentative de présentation d'un ensemble informatif, d'une ébauche sur la politique publique, dans le but de stimuler et de faciliter une initiative en sciences de l'économie familiale pour influencer la formation, l'implantation, et l'évaluation de politiques publiques. L'auteur suggère que nous ne pouvons présumer la connaissance du processus de politique du pays par tous les professionnels en économie familiale canadiens; leur potentiel en tant que participants efficaces au processus pourrait être amélioré s'ils possédaient une connaisance de base de ce processus.

This is a second in a series of articles pertaining to our role as home economists in influencing policy and is based on the fact that all areas of our diverse profession are affected by public policy. The first article (McGregor, 1988) communicated the position that we cannot fulfill our professional obligation to influence public policy unless we have a good understanding of the political process. Central to this position is the issue of whether or not most home economists gain, as a part of their training, the knowledge and skills necessary to influence public policy as it relates to the family. In 1987, Johnson concluded that home economists do not feel adequately prepared to get involved in public policy formation. She proposed that the potential of home economists to influence policy decisions is curtailed because we do not have the skills necessary to be effective political participants. This is rather disturbing in light of two facts. First, the common body of knowledge in home economics should include the concepts related to the role of the home economists in public policy (Parker, 1987). Second, the strategic plan of the Canadian Home Economics Association incorporates a goal of initiating, fostering, and supporting private and public policy, which improves the quality of family life. How can we profess to achieve this goal if we do not have the information and concepts necessary to take any actions?

Consequently, working on the premise that we cannot assume that all Canadian home economists are familiar with the policy process, the purpose of the second article in this series is to provide a selective profile of the workings of the Canadian policy process. In no way do I profess this to be all inclusive. Rather it is a primer intended to alleviate some of the ambiguity surrounding the entire process. Ultimately, it will foster further interest in public policy involvement and will provide home economists with the necessary functional information to enable and prompt them to take some initiative.

A previous article (McGregor, 1988) outlined the areas that we need to be familiar with in order to feel more adequate in our professional role as a policy development player. In summary these included the players, the process, the tools, and the unwritten rules of the game and this paper will address each of these areas.

The Players

Adie and Thomas (1982) describe policy as decisions or non-decisions made by government or non-government officials that affect a significant segment of the Canadian public, hopefully to their benefit. Policies are the intentions of the central agencies and cabinet of the elected government. The bureaucracy, non-elected government officials who follow rigid, formal routines, implement the policy decisions made by the elected cabinet.

Doern and Phidd (1983) compiled a comprehensive list of policy fields and some of the areas more relevant to home economics include consumer, housing, banking, health care, youth, aged, pensions, transportation, social welfare, economic development, interest rates, women, price and income, agriculture and food, taxes and education to name a few.

This list constitutes one the two major policy fields of the Canadian government, that being domestic policy. This is comprised of both social and economic development issues. the

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other major policy field is foreign policy of which trade, international development, energy, nuclear, defense and arms control are relevant examples. This breakdown should provide the reader with a better understanding of what they can try to influence and what they should monitor.

The tools — policy instruments

In order to successfully implement policies established by the central agencies and cabinet, the bureaucracy needs to know what actions to take. Basically, government policy makers have a menu of six policy instruments from which to choose when deciding how to put a policy decision into action. These include symbolic output, exhortation (suasion), expenditures, regulations, taxation, or public ownership. A brief explanation of each one would facilitate a better understanding of what options the government has at its disposal when making implementation decisions. All of the information in this section was taken from Jackson, Jackson & Baxter-Moore (1986) and Doern and Phidd (1983).

Symbolic outputs These actions are used when the government has made no decision yet it must be seen that the government is doing something to address a sensitive issue. These symbolic actions include speeches, reorganization of portfolios, resolutions or the establishment of a royal commission or special committee.

Exhortation (suasion) Governments will often try to persuade individuals or groups to comply voluntarily with government objectives in the absence of other policy instruments. There may be government sponsored advertising campaign or a minister may try to subtly pressure someone to refrain from doing some activity.

Expenditures Often times government will spend money to achieve policy objectives. The most obvious examples include transfer payments in the form of old age pensions or family allowance or the use of subsidies, loans, grants. It could also include the fiscal transfer of funds to provinces to alleviate regional differences or to contribute to Medicare, social assistance (welfare) and post secondary education.

Regulation Regulation is explained as "the imposition by government of rules, backed by the use of penalities, that are intended specifically to modify the economic behavior of firms and individuals in the private sector" (Jackson, Jackson & Baxter-Moore, 1986, p. 595). Regulation options include statutory legislation, the tax system, guidelines, tarrifs, rules, fines, penalties, and imprisonment. It also includes the activities of semi-autonomous regulatory agencies acting on behalf of the government, such as the Canadian Radio-Television and Telecommunications Commission (CRTC).

Taxation Governments levy taxes on the public in order to gain revenue to implement their policies and to finance government operations. This is a type of regulation since it is regulated by the Income Tax Act but some regard it as a specific policy instrument.

Public ownership The final option open to the government is to directly provide the Canadian citizen with goods and services by establishing corporations owned partly or wholly by the government (for example, railways, airways, telephone, or hydro).

Governments' freedom of choice from among the various policy instruments entails consideration of economic, legal, political, and external constraints. But there are three models that try to explain why and how particular instruments are chosen by a government in pursuit of their policy objectives (Jackson, Jackson & Baxter-Moore, 1986). Ideally, governments will choose the instrument(s) which will most effectively attain the goal. They are more likely to choose an instrument that maximizes their reelection; or they may choose the least coercive option first, then progress to the most coerceive. The policy instruments just described were noted in ascending order of coercion (symbolic being least and public ownership being most coercive).

The policy process

Before one can decide when and who to influence, one needs a basic understanding of how policies are developed and how a bill passes into legislation. The author has signaled out legislation from the other policy instruments for two reasons. One, although it is not always necessary for government to pass laws in order to carry out policy decisions, legislation always seems to ensure most policies. Secondly, it is significant to know whether your proposal can be implemented with existing legislation, needs new legislation, or can be implemented more effectively with another of the policy instruments (Chapin & Deneau, 1978).

An abbreviated version of how a policy is determined and how a bill passes into a piece of legislation will now be presented. The reader may wish to consult Adie and Thomas (1982), Bejermi (1980), or Jackson, Jackson & Baxter-Moore (1986) for a more comprehensive discussion of this extensive process.

Chapin and Deneau (1978) maintain that "proposals are developed within the bureaucracy, pass through the hands of the senior policy advisors, are then approved by the cabinet before being presented to members of the parliament" (p. 21). They suggest that the policy making process is divided into four stages:

- initiation
- priority determination
- formulation
- refinement

There are several sources who can initiate policy, including interest leader groups, influential groups, politicians (members of cabinet), bureaucrats, independent policy research institutes, advisory boards, royal commissions, task forces, and even the general public. Home economists are among these initiators. For simplicity the following is an elaboration on the policy initiation procedure, on the premise that the policy was initiated by bureaucracy.

When policies are initiated, developed, and refined within the bureaucracy, the senior policy advisors (deputy and assistant deputy ministers) play the key roles. Because bureaucrats administer government programs they are in a better position to monitor the impact of policy decisions and recommend necessary changes. As well, they are better able to understand the political and social costs involved. It stands to reason then that a large amount of the policy decisions making is in the hands of the bureaucracy.

Determination of priorities among policy proposals is the elected right of the Prime Minister and the five central agencies (the Prime Minister's Office (PMO), the Privy Council Office (PCO), the Federal Provincial Relations Office (FPRO), the Treasury Board and the Department of Finance). However, for reasons noted previously, a considerable amount of screening is actually carried out by the non-elected bureaucrats and by senior policy advisors prior to proposals being brought before the cabinet (Chapin & Deneau, 1978). In reality, policies are prioritized indirectly by bureaucracy and formally by government.

In the policy formulation stage, policies are passed through the hands of the senior policy advisors (bureaucracy) who undertake the task of formulating polished proposals for final cabinet consideration.

Finally, those policies subsequently approved by cabinet are presented to parliament (Prime Minister, his cabinet and the opposition) who then have an opportunity to question proposals, recommend changes and refine, approve, or disapprove policy decisions via televised debates. The government will also discuss the appropriate instrument to implement the policy.

How a bill becomes legislation It is at this stage that moving a bill to legislation becomes relevant. If a policy proposal requires legislation, the minister responsible for the relevant portfolio instructs the Department of Justice to draft a bill. A bill is the name given to the draft of a potential law. (The reader is directed to Charles (1978) for a detailed discussion of the process of drafting a bill).

The bill is now presented for consideration of the legislature, made up of the lower house called the House of Commons and the upper house (Senate). The bill has three readings in the lower house. A reading of a bill means that the bill has been examined, reviewed, and amended if necessary (Bejermi, 1980). The first reading introduces or announces the measure. There is no debate nor are amendments allowed. The second reading (usually the next day) allows debate but it is confined to a debate of principles. In other words, the House of Commons has to decided whether there is a need for the bill (Bejermi, 1980). After the second reading, if approved by the House of Commons, the bill goes to a Standing Committee of the House to be thoroughly examined via dissection, witnesses and examination of supporting documents. The bill then goes back to the House of Commons where members decide whether to accept the amended bill or suggest that it be amended further. When this amendment stage is complete, it goes back to the House for a third reading where parliament votes whether or not to accept the bill.

If it is accepted, the bill then goes to the Upper House (Senate) for three more readings and then if it passes these, it is forwarded to the Governor-General for Royal Assent (that is, the bill is signed by the Governor-General and becomes law). If however, the Senate decides that the bill needs further amending, it must go back to the House of Commons where they consider the new amendments suggested by Senate. If the lower house finally accepts it, it passes to Royal Assent. If a bill is defeated, it is lost and the process must start all over again!

Who to influence and when The policy making process is quite extensive and open to many opportunities for someone to influence and process. However, there are some avenues that are more successful than others. The question of who to influence and when, should not be taken lightly. Knowing *who* to approach with one's proposal and knowing *when* to approach them is crucial to the success of your efforts to have any impact on policy formation in Canada.

Chapin and Deneau (1978) do an admirable job of identifying appropriate people or agencies to approach and avoid when trying to make your opinion heard. They make first reference to the aforementioned five central support agencies serving the Prime Minister. Although these agencies at the center of the Canadian government provide the Prime Minister with independent assessments of policy proposals, for reasons noted below, they are not a useful starting point for influencing policy.

The PMO is concerned primarily with the timing of your proposal with elections and with your voting potential. The PCO coordinates policy proposals coming in from the various government departments; you have missed the boat as far as influencing the formulation of policy. The FPRO, which negotiates the cost-share programs between the two levels of government, is criticized for having too few contacts with citizen organizations of research or advisory councils. As well, the Treasury Board, which advises on how to spend the governments money, and the Department of Finance, which advises on how much money there will be to spend via the budget, are also criticized for not including citizens in the policy making and priority determination processes.

Not to be deterred, Chapin and Deneau (1978) continued to suggest appropriate sources to influence and these are presented here in descending order of the best chance to exert influence. It should be obvious at this point in this discussion that the best party to approach with your concern or proposals is the senior bureaucrat. They have considerable influence in developing and more importantly, prioritizing policy issues. Furthermore, the elected government relies on them for expert advise. Developing a rapport with appropriate civil servants is imperative for monitoring the issues and getting in at the ground level.

There are other relevant vehicles that may provide you with an opportunity to exert some influence. Among these are green papers, joint house committee reports, or special senate committee reports. Green papers are the result of a departmental review. Because green papers are published at an early stage of the policy making process they provide the first indication of a proposed government initiative. This is one of your best chances to respond to a policy issue! Both the joint house or special senate committees offer the opportunity to express concern, via public hearings, directly to political respresentatives who have the mandate to recommend and pursue policy changes. In the past, policies on divorce laws, consumer credit, poverty, and employment have received public debate and subsequent influence.

Sub-committees of standing committees gather information about attitudes of interest groups *prior* to introduction of a bill, that is before it has come before the House of Commons. Subsequently, they are quite responsive to citizen input. A task force on the other hand, is receptive to citizen input but there is no guarantee that government will accept the proposals of the tack force.

Less successful avenues of influence include royal commissions, white papers, standing committees, and advisory boards. The royal commissions are ad hoc bodies appointed by government on a specific policy issue. Although they do conduct public hearings, thus enabling citizen input, the use of these hearings has declined to such an extent that citizens have fewer opportunities to express their views to commissioners. White papers (for example, Mr. Wilson's white paper on tax reform), represent government policy *preferences* prior to the introduction of a bill. By enabling government to scrutinize public response, they provide a gauge to measure the impact of the policy proposal. Although one can respond at this stage, and well you should, it is a very late stage of the policy development process. In essence, the government has already made up its mind. As well, the permanent standing committees recommend changes in details of the proposal and are not necessarily concerned with the formation or prioritization of the policy. In fact, at this point, the proposal has already gone through second reading in the House of Commons.

Citizens may also want to consider advisory boards. Advisory boards and councils are established by acts of parliament. The members are selected by the Prime Minister. It is argued that these boards are not good channels for citizen input because they are too elite. They all seem to do a thorough job of explaining the status quo but their members are hand picked by the Prime Minister and therefore there may already be a bias introduced into the policy process. Some examples include the Advisory Council on Status of Women, Canadian Council on Social Development, National Council of Welfare, and the Economic Council of Canada.

If one chooses to approach a member of parliament (MP) to try to influence a policy, they will have better luck if they address a member of the majority party (instead of a private member) because the majority party dominates the floor of the House of Commons. One last opportunity may arise if one is on top of things and grasp the chance to influence a "trial balloon bill". Sometimes government purposely introduces a bill at the end of the parliamentary session knowing full well that there is not enough time to get it passed. Not only do they now have the option of measuring the parliaments reactions but one can also intervene and exert some influence before they redraft the bill for the next session (Bejermi, 1980).

Almost everyone has a chance to participate at some stage of the policy process. Reflection suggests that the appropriate time is before policy prioritization and before drafting a bill; that is at the bureaucratic level. If you wait until the bill gets to cabinet, it may be too late to have much impact.

Inherent barriers to influencing the policy process — the real world. Although familiarity with the players, the process, and the tools of the policy game is a necessary starting point, you would be participating at a disadvantage if you were not aware of some realities that cannot be ignored. Policy making does not take place in a vacuum. You will be trying to influence a process that operates under a set of unwritten yet significant set of rules. A review of Adie and Thomas (1982), Chapin and Deneau (1978) and Jackson, Jackson, and Baxter-Moore (1986) resulted in an inventory, albeit incomplete, of some indisputable harsh realities facing anyone aspiring to influence the Canadian policy process.

For one thing, Government says it values citizen participation but in reality they do not want it. Citizen apathy cushions the shock of change. The less involved the public is in public policy, the easier it is for the government to run the country without interference. Second, major policy decisions often serve the interest of the ruling elite and Parliament may be reluctant to oppose the status quo. They want to stay in office. Another obstacle to influencing public policy is the reality that your proposal will be in competition for limited government resources. One must be cognizant of the fact that policy decisions are costly to implement and realistically there is constraint on the federal budget. There is little money left for requests for new programs or improvements to existing ones.

Another reality is the fact that most of those in political power are solid middle class and hence may not be as receptive to the plight of the lower class majority. As well, the demands of the corporate sector (which represent money and power) receive higher priority than those of disadvantaged population groups.

The perception that the Prime Minister and his cabinet prioritize policy proposals is tinted by the reality that senior bureaucracy screens the proposals before they go to cabinet. In other words, the institutions where the decisions are made are not necessarily those to which we elect our politicians. To further complicate this is the reality that the departments are in competition with each other to get new programs so as to increase the size and power of their department. The result may be that your proposal may get left by the way side due to internal competition. As well, members of the parties are vying for advancement in the political hierarchy. They may only take notice of policy proposals that benefit their personal career goals.

In the same vein of thought, your proposals and briefs may actually get evaluated and the major points duly noted, but they are then condensed into composite form by policy analysts before they reach the minister or cabinet. Your valid ideas may get lost or not receive the recognition or attention they deserve because they get lumped in with all of the others. One final point (which merits a paper in itself) is the fact that federal-provincial relations touch almost every policy field, so it is imperative to have an understanding of this volatile relationship if you want to affect policy development in light of reality.

Conclusion

Adie and Thomas (1982) aptly point out that government is most responsive to groups that bring attention to and public support for their special interests. We as a group could do this more effectively if we understood the idiosyncracies and contradictions within government as well as the people involved and the process entailed in establishing policies that affect every Canadian family in some form or other. This paper has been an attempt to present an information package, a primer that strives to stimulate and facilitate the home economics initiative to influence public policy formation, implementation, and evaluation for the benefit of family well being. ☐

References

Adie, A.F., and Thomas, P.G. (1982). *Canadian public administration: Problematical perspectives.* Scarborough, Ontario: Prentice-Hall Canada.

Bejermi, J. (1980). *How parliament works.* Ottawa, Ontario: Borealis Presss.

Chapin, H., and Deneau, D. (1978). *Citizen involvement in public policy-making: Access and the policy-making process.* Ottawa, Ontario: Canadian Council on Social Development.

Charles, W.H.R. (1978). Public policy and legislative drafting. In W.A.W. Neilson & J.C. MacPherson (Eds.), *The legislative process in Canada: The need for reform* (pp. 267-302). Toronto, Ontario: Butterworth & Co.

Craig, K.E. (1987). Making a difference in public policy: The home economics initiative. *Home Economics Forum,* 2(1), 3-4.

Doern, G.B., and Phidd, R.W. (1983). *Canadian public policy; Ideas, strucure, process.* Toronto, Ontario: Methuen Pub.

Jackson, R.L., Jackson, D., and Baxter-Moore, N. (1986). *Politics in Canada: Culture, institutions, behavior and public policy.* Scarborough, Ontario: Prentice-Hall Canada.

Johnson, B. (1987). Do home economists feel prepared for political involvement? *Home Economics Forum,* 2(1), 14-15.

McGregor, S.L. (1988). Rhetoric vs. reality: Home economists in public policy. *Canadian Home Economics Journal* 38 (4).

Parker, F.J. (1987). *Home economics: An introduction to a dynamic profession.* New York, New York: Macmillan Pub. Co.

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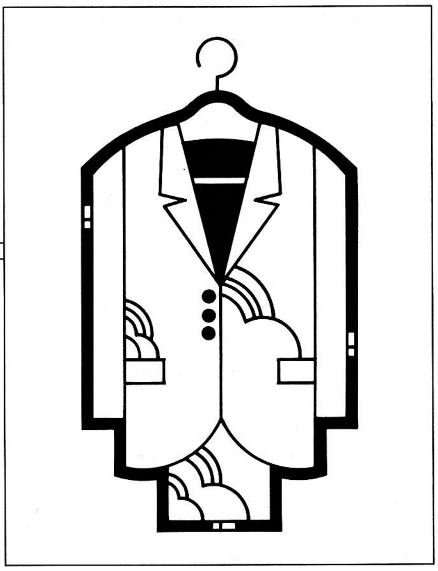
Protective Clothing Research: A Systematic Holistic Approach



E.M. Crown and K.B. Rigakis

Abstract

A research program addressing the problem of providing protective workwear that is acceptable to workers is described. Several phases of two different projects within the program are outlined, emphasizing benefits of the interdisciplinary holistic approach to the problem which has been adopted by the research team.

Résumé

L'article décrit un programme de recherche traitant du problème d'approvisionnement en vêtements de travail protecteurs acceptables par les employés. On y souligne les phases de deux différents projets au sein du programme, en mettant l'accent sur les avantages de l'approche interdisciplinaire holistique face au problème adopté par l'équipe de recherche.

For several years faculty and graduate students in the Department of Clothing and Textiles at the University of Alberta have participated in a research program focusing on protective workwear. Recently, emphasis has been placed on the needs of workers in two of Alberta's most important sectors: agriculture and energy. While one may argue that all clothing is in some way protective, for this research the term "protective workwear" denotes clothing that provides protection from specific hazards in the work environment.

Given the nature of the basic problem — the need for protection from physical hazards — much of the early research on protective clothing was limited in its emphasis on the physical, textile science aspects of the problem. Thus, while for even the most severe physical hazard, it is usually possible today to find clothing that will provide sufficient protection, highly protective workwear has not been practical for day-to-day wear on the job. It may be ugly and uncomfortable and may interfere with the worker's mobility and performance of some tasks. The problem, therefore, is no longer seen as one of merely providing protective workwear, but rather as the need to develop clothing systems that are sufficiently protective while at the same time being acceptable to workers regarding comfort, mobility and several other criteria depending on the work environment and tasks to be performed.

In focusing on the larger problem we have developed a systematic, holistic approach to the research. Such an approach must be interdisciplinary, combining the expertise of several staff and graduate students within the department as well as colleagues from other departments and from outside the university. The research problems have come to us from people "in the field" and we continue to work closely with these people in conducting the research. The interdisciplinary nature of the program is emphasized below in an outline of various phases of the major projects within the program. A brief summary of the benefits of such an approach follows.

Agricutlural Workwear: Protection From Pesticides

The original focus of the program funded by the Agricultural Research Council of Alberta was on limiting pesticide exposure of agricultural workers through textile cleaning procedures and selection of clothing. The purpose was to determine whether the laundry practices commonly used by Alberta farm families removed pesticides accidently spilled on clothing during handling and use. Although dermal exposure has been shown to be a significant hazard to pesticide applicators (Wolfe, Durham & Armstrong, 1967), many farmers as well as urban applicators do not adequately protect themselves and are likely to wear their usual work clothing when using pesticides, making it necessary for decontamination methods which adequately remove any pesticides inadvertently spilled on them. The research comprised both a survey of farm families to determine attitudes and current clothing and laundry practices, as well as laboratory experimentation, and combined the expertise of both textile and behavioral

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scientists in the department as well as chemists and extension personnel in Alberta Agriculture.

The survey and some experimental results are reported in Rigakis, Martin-Scott, Crown, Kerr and Eggertson (1987). This and other research have resulted in the publication of guidelines for farmers in brochures such as "Protective Clothing for Pesticide Use," Homedex 1353-90 from the Home Economics Branch, Alberta Agriculture. Advantages of working with extension personnel are clearly seen here: not only are the research problems identified, but the results are made available to those who can use them most, farm families.

In order to study more thoroughly the problems of appropriate design, selection and decontamination of clothing for use by pesticide applicators, a cooperative research group was formed in the north Central Region of the United States. The University of Alberta joined this research group (NC-170 Technical Research Committee) in the fall of 1984. Most of the experimental laundry research of this group to date is reported in Nelson and Fleeker (1988), a bulletin which also cites much important literature in the field.

While the laundry studies are determining the most effective means of decontaminating clothing, they also clearly indicate that many pesticides cannot be completely removed, and thus further wearing of the contaminated clothing will continue to expose the wearer to the pesticide. While the laundry studies continue, NC-170 committee members are also conducting studies of functional apparel design and pesticide penetration through various fabrics. In Alberta we turned our attention to the design and evaluation of disposable coveralls of spun-bonded olefin as an extra layer of protection. During this phase, pesticide penetration studies were conducted on new and abraded spun-bonded fabrics (Martin-Scott, 1987). Field trials of commercially available coveralls and studies of farmers' attitudes toward wearing such coveralls have been completed (Perkins, 1988; Perkins, Crown and Rigakis, 1988; Perkins, Crown and Martin-Scott 1988). Laboratory measurement of comfort variables and wear trials under controlled environmental conditions were undertaken to assess the comfort and fit of the coveralls (Crown, Perkins and Tremblay, 1988). This phase has involved the cooperation of textile and behavioral scientists in the department and colleagues from Chemistry and Psychology. Again, several extension personnel in Alberta Agriculture assisted with the field trials.

Our research to date on the disposable coveralls has indicated that some of the garments that do provide extra protection are also generally acceptable to farmers with respect to comfort, at least under climatic conditions normally experienced in Alberta during spraying season. There have been problems with fit and limitations of mobility, however. Examination of the garments revealed that rips were repeatedly found in the crotch area, and it was thought these problems were due to either garment design or sizing problems. A current project, therefore, has as its purpose the design and evaluation of additional styles of disposable coveralls which should alleviate these problems. The project which incorporates the expertise of apparel design staff and students at both Alberta and the University of Guelph, has utilized the functional apparel design process as outlined by de Jonge (1984). This process is in keeping with the holistic research approach and builds on much of the research to date. The design process was reported at a recent CHEA Conference (Van Schoor, Crown, Bachynski & Wall, 1988), while the data from the evaluation part of the study is being analyzed at the time of writing.

Another current project involving a graduate student focuses on the fit and comfort of protective gloves. This is again part of a larger study conducted by members of the NC-170 committee. The focus in Alberta will be on anthropometric (hand) measurements and the effect of glove fit on dexterity. Once again, the cooperation of Alberta Agriculture personnel has been essential in obtaining the large number of farmers who have participated in this study.

While much has been accomplished already by members of NC-170 and other researchers, there remains many unanswered questions, and we expect to continue research in the area of protective clothing for agricultural workers for some time into the future.

Protective Workwear for the Oil and Gas Sector

The project funded by Alberta Community and Occupational Health has been undertaken more recently than the agriculture project, but follows from earlier research on textile flammability. As a result of the earlier work we often received requests for information and advice on protective clothing. This was especially true following bad accidents in the oil and gas industry. People in the industry wanted help, but they usually were uncertain as to what kind of help they wanted or what they needed to know.

Several types of protective workwear are available, but needs of workers in various industry sectors are not well established, nor has the appropriateness of the available clothing for these needs been studied. Likewise, various test methods for measuring specific attributes of protective workwear have been developed, but what is lacking is an overall systematic approach, taking into account all relevant evaluative criteria. While the results of one set of tests might suggest the superiority of a given alternative, this same alternative may be deemed unsuitable in the field, for reasons unrelated to that particular test or criterion. The purpose of the project, therefore, is to develop a valid assessment system for protective workwear which includes both laboratory tests and a framework for wear trials to be used by industry. While our current emphasis is on the oil and gas sector as an example, the resulting assessment system should be applicable to other industrial sectors because of the holistic approach being taken.

The first objective was to develop a comprehensive set of evaluative criteria for consideration in any assessment system, and to determine through field study with workers in several sectors which evaluative criteria are relevant to each sector. We began by conducting an extensive review of the literature on protective clothing. The review suggested several criteria which we might expect to be important, but we found that the literature focused mainly on laboratory measurement of physical attributes. Very little literature was found on workers' beliefs and attitudes, even though we consider these factors to be the key to success in any protective workwear program. We decided, therefore, to focus on the workers, their needs, beliefs, and attitudes, as the first phase of the project.

The first procedure for obtaining user input was a series of management interviews followed by several focused group interviews with groups of workers in their own environments. Various categories of evaluative criteria were established through both the literature review and the focused group interviews. The importance of each varies with the industry sector, and more specifically, with an individual's job classification, the tasks performed, and the environment for performing these tasks. Nevertheless, in addition to protection, several aspects of comfort and fit or mobility were always mentioned.

The interviews were followed by a questionnaire measuring attitudes toward wearing protective workwear. Questionnaire items were based in part on beliefs and evaluative criteria determined during the interview stage. Results from this phase of the project were reported recently at the XVI World Congress of IFHE (Rigakis and Crown, 1988). This phase utilized the expertise of both textile and behavioral scientists in clothing and textiles, as well as occupational safety and engineering personnel in both government and industry.

The second objective was to (a) conduct wear studies of protective clothing alternatives; (b) conduct small scale laboratory tests related to each relevant criterion; (c) determine associations between wear study and small scale test results; and (d) based on the foregoing, determine for which criteria it is possible to predict the results of field trials by choosing an appropriate set of laboratory tests.

Twenty volunteers representing a range of jobs in the oil and gas sector participated on the job in a summer wear study of protective coveralls. A second wear study tested complete clothing systems (jeans, shirts, coveralls, parkas) on the job during winter months. In addition, a smaller number of workers participated in controlled exercises in an environmental chamber, in order to develop a test protocol to be used for evaluating clothing systems under controlled environmental conditions.

Concurrent with the wear studies, small scale laboratory tests relevant to each evaluative criterion have been conducted. Results from the wear studies and small scale tests are being analyzed to complete the second objective. The wear studies required the expertise of both textile and behavioral scientists as well as a knowledge of functional apparel design and benefited from the assistance of colleagues in psychology. The laboratory tests were conducted by textile scientists with the assistance of colleagues in mechanical engineering who have particular expertise in thermal measurement.

Our colleagues in mechanical engineering have also contributed greatly to the third objective, which is to develop a full-scale mannequin system for the measurement of thermal factors which cannot be measured by small-scale tests, and for safety reasons, cannot be "tested" in the field. One method of evaluating the effectiveness of clothing in protecting the skin from second and third degree burns in flash fires, is to expose an instrumented mannequin to a similar situation and assess the resulting potential skin damage. Various methods to measure the rate of heat transfer to the skin were evaluated, and eighty of the selected sensors are being inserted in an adult-sized mannequin built for the full-scale testing of clothing systems. Development of the mannequin and an initial round of garment testing are expected to be complete by the end of 1988.

Benefits of Interdisciplinary Research

We have briefly outlined above two parts of a research program which have benefited from the interdisciplinary holistic approach to the problem that has been adopted by our research team. One major advantage of the approach is the sense of team work that has developed. This is especially relevant to the graduate students who have been involved in the program. Students from several areas of the graduate program have worked together on a problem and each has gained a sense of the importance of her own contribution and how it relates to the contributions of others, rather than working on an isolated problem.

I have already referred to the benefit of working with extension personnel in terms of both defining the problem and disseminating results. The same has been true of working closely with people in the oil and gas industry. By including colleagues from other university departments on the research team, not only have we increased our level of expertise, but equipment and other resources have been available that otherwise would have been difficult to obtain.

One final significant benefit of the holistic approach is that of funding. Traditionally, external funding has been more readily available for physical science research than for the social sciences. This is generally true today as well, but by combining our efforts we have been able to attract funding that was initially available largely for physical sciences and by convincing funding authorities of the holistic nature of the problem have been able to fund graduate students in several areas of the program. Thus, while the interdisciplinary holistic approach may be time consuming and requires making many contacts and a great deal of coordination, we believe the benefits of such an approach clearly outweight these limitations. □

References Cited

Crown, E.M., Perkins, H.M. & Tremblay, J.F. (1988). Comfort of disposable protective coveralls for agricultural use. *Proceedings of the 1988 National Institute of Farm Safety Summer Conference* (in press).

De Jonge, J.O. (1984). The design process (Forward). In S.M. Watkins, *Clothing: The portable environment*, Ames: Iowa State University Press.

Martin—Scott, S. (1987). *The Effect of abrasion on pesticide penetration through disposable coverall fabrics.* Unpublished master's thesis, The University of Alberta, Edmonton.

Nelson, C.N. & Fleeker, J.R. (Eds.) (1988). *Limiting pesticide exposure through textile cleaning procedures* (North Central Cooperative Series #314), Fargo: North Dakota State University.

Perkins, H.M. (1988). *Attitude and behavior of farmers toward disposable protective clothing: An experimental field study.* Unpublished master's thesis, The University of Alberta, Edmonton.

Perkins, H.M., Crown, E.M. & Martin-Scott, S. (1988). Durability of disposable protective coveralls for use by agricultural workers. In B.M. Reagan, D. Johnson and S. Dusaj (Eds.), *Proceedings of the First International Symposium on the Impact of Pesticides, Industrial and Consumer Chemicals on the Near Environment* (pp. 17-18). Manhattan, Kansas State University.

Perkins, H.M., Crown, E.M. & Rigakis, K.B. (1988). The attitude and behavior of farmers towards disposable protective clothing. An Experimental Field Study. In B.M. Reagan, D. Johnson and S. Dusaj (Eds.), *Proceedings of the First International Symposium on the Impact of Pesticides, Industrial and Consumer Chemicals on the Near Environment* (pp. 234-242). Manhattan, Kansas State University.

Rigakis, K.B. Martin-Scott, S., Crown, E.M., Kerr, N. & Eggertson, B. (1987). Limiting pesticide exposure through textile cleaning procedures and selection of clothing. *Agriculture and Forestry Bulletin*, 10(2), 24-27.

Rigakis, K. & Crown, B. (1988, July). Workers' attitudes and behavior toward protective clothing in the oil and gas industry. In H.C. Brittin (Ed.), *Research Abstracts. XVI World Congress, International Federation for Home Economics*, Lubbock: Texas Tech Press.

Van Schoor, H., Crown, E., Bachynski, G & Wall, M. (1988, July). *The functional apparel design process: A description of its use in the design of disposable protective coveralls for pesticide applicators in agriculture.* Poster presented at the annual conference of the Canadian Home Economics Association, Guelph, Ontario.

Wolfe, H.R., Armstrong, J.F. & Durham, D.F. (1967). Exposure of workers to pesticides. *Archives of Environmental Health*, 14, 622-633.

Teaching of Global Concepts in Home Economics: A Curriculum Document Analysis

Linda Peterat

Abstract

Current home economics curricula guides in the provinces of Canada were examined for the presence of global concepts and to compare certain aspects about the global concepts present. While global concepts are present in curricula of most provinces, they tend to cluster in a certain few topics and problems, within only some content areas, and more likely at senior high levels than junior high. If global education is to be taken seriously in home economics, it is necessary to develop some sound educational philosophical bases and to develop curricula in issues and problem-posing formats which facilitate the inquiry processes necessary in global education.

Résumé

L'article examine les guides actuels des programmes scolaires en sciences de l'économie familiale au Canada en vue de détecter la présence de concepts globaux et de comparer certains aspects sur les concepts globaux présents. Les concepts globaux sont incorporés aux programmes de la majorité des provinces, cependant, ils tendent à se regrouper en certains sujets et problèmes, au sein de mêmes secteurs, plus probablement aux niveaux avancés de l'école secondaire qu'aux niveaux débutants. Si l'on doit respecter l'éducation globale en sciences de l'économie familiale, il est nécessaire de mettre au point des bases pédagogiques philosophiques solides et de développer des programmes sur des questions et des formats de pose de problèmes qui facilitent les processus d'inquisition nécessaires à toute éducation globale.

For the past approximately fifteen years home economics educators have increasingly incorporated global concepts into their teaching (Lyall, 1980; Peterat, 1977). Home economics has been historically an international movement and its ecological focus has encouraged considerations of interrelationships and interconnections between individuals, families, and nations.

This recent interest in global concepts can in part be traced to curriculum reform of the 1960s and 1970s which established the significance of foods, clothing, and family as essential major concepts in the study of these topics (American Home Economics Association, 1967) and drew more attention to relationships with the near and general environment. The emphasis on significance of food, clothing, and family introduced to the curriculum considerations of sociological, psychological, and cultural factors influencing daily living practices and realities. At the same time in recent years, teachers have increasingly been sensitive to the cultural heritages and traditions of students in their classes. Aware of the diversity of their students, teachers have attempted to incorporate into their teaching more considerations of peoples of other cultures and countries. These efforts have often resulted in positive teaching and learning experiences (Wilk, 1987). While there is evidence that teachers are increasingly interested in incorporating global concepts into their teaching and that there has been increasing encouragement for doing so, the extent to which global concepts are an integral part of the current home economics curricula in the provinces of Canada has not been investigated. The purpose of this study was to examine current home economics curricula guides in the provinces of Canada for the presence of global concepts and to compare certain aspects about the global concepts found in the curricula.

Method

Curricula documents were requested from home economics and curriculum consultants in the ten provinces of Canada. Curricula documents were received from all ten provinces of Canada. A total of forty-one separate documents were received and reviewed.

The method used for analyzing the documents for the presence of global concepts was developed by William Cissell (1987). For the purpose of analyzing school curricula for the presence of international health concerns, Cissell used nine trigger terms: world, international, other culture(s), other nation(s), other geographical area(s), earth, developing countries, global, and cultural interdependence (1987, p.11). These same trigger terms were used in this study as indicators of global concepts. The rationale, goals, objectives, content and activities in each of the curricula documents were

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scanned for the presence of the trigger terms. In home economics curricula, many of the concepts are potentially global ones, such as parenting, marriage, clothing, housing etc., however while the concept itself is often a universal one, the intention that it be treated this way is not always explicit in curriculum. Thus the trigger terms used by Cissell were appropriate for analysis because each one indicates a global treatment, intending to move considerations beyond a local, provincial, or national treatment.

In addition to scanning the curricula guides for the presence of global concepts, attention was also turned to the grade levels at which the global concepts were present. The reasons stated for including global concepts in the rationale and goals of the curricula were also examined. The scope of global concepts contained in the curricula, the variety of suggested learning activities, and the kinds of aspects of global problems included were noted.

Findings

Rationale and Goals

The trigger terms, indicating global interest, were present in the rationale, general goals or objectives of home economics curricula guides in eight of the ten provinces examined. However the presence of this global interest was not consistently present in all curricula guides for all courses and grade levels. For example, in the four guides examined from Newfoundland and Labrador, only one (*Textiles 3101*) had two major course objectives which examined clothing "across cultures" and considered "cultural factors" in relation to clothing behavior and choices. Thus, while global interest was not consistently evident in all rationales and objectives for all specific courses in home economics, the interest was also not present in both the junior and senior secondary level courses. A global interest was more frequently present in curricula guides at the senior secondary level than at the junior secondary level. Furthermore the global interest was also more explicitly stated in the curricula guides of some provinces than others. For example, *A Teacher Handbook for Division III and IV Home Economics* states the following two general objectives:

- To develop the ability to manage changing human, material and environmental resources to achieve individual, family, community, and global goals.
- To provide insight into ideals and ideas of other societies (past and present) in order to provide cross-cultural insight and understanding. (Saskatchewan Education, 1983, p.5)

On the other hand, other goal and rationale statements are less explicit and thus open to various interpretations. For example, the *Family Management 11/12 Curriculum Guide* states:

> The ecological approach focuses on individuals, families, and other social groups in natural settings and assumes that all elements of the world are mutually sustaining and interdependent.
> (British Columbia Ministry of Education, 1986 p.3)

> The purposes of the course are to assist students to explore the reciprocal influences of family, self, and society and to develop positive attitudes about themselves and their world.
> (British Columbia Ministry of Education, 1986, p.4)

The reasons for global interest expressed in the general goals or rationale for the curricula were examined further. The most frequently cited reason for a global interest was the recognition of the interdependent world in which we live. The recognition of this interdependence commonly derived from the definition and purposes of the discipline of home economics. This was most apparent in the rationale for the Nova Scotia curricula. It drew on early statements of the purpose of home economics in "furthering community, national and world conditions favorable to family living" (Nova Scotia Department of Education, 1977, p.1). This position was further re-inforced: "The core of home economics is the family ecosystem. It is the study of the reciprocal relations of family to its natural and man-made environments. . ." (p.3). And the justification continued, "This wider environment, extending to the total global environment, as a setting for individual families, is an important concept to keep in mind . . ." (p.11). While Nova Scotia gave the most extended justification for a global interest because of world interdependence, this reason was stated either explicitly or implicitly by five provinces.

The next most frequently given reason for teaching global concepts was that it was necessary for achieving effective family living in the sense of interpersonal harmony (caring, sharing, and friendship). This reason was explicitly stated by two provinces and implicitly by one. Two provinces stated reasons of shared problems and three the reason of a changing world. Two provinces gave the reason of cross-cultural understanding. The reason of cross cultural understanding was most explicit in the rationale of the Ontario curricula. While many reasons are given for the need to understand similarities and differences of peoples on a world wide basis, it is also stated that "similarities and differences in their cultural and racial backgrounds are an integral part of the Canadian society" (Ontario Ministry of Education, 1987, p.16). While the Manitoba curricula encouraged "multicultural experiences", this was not directly related to the program rationale and goals. One province also implied that solutions to problems require cooperation if individuals and families are to have a better future.

Objectives, concepts, and activities

Six of the ten provinces whose home economics curricula guides were analyzed, had each more than three objectives, aims or generalizations which included global concepts. Quebec, Prince Edward Island, and Newfoundland and Labrador each had minimal and ambiguous statements of global interest. Examples of the minimal and ambiguous statements are:

> To illustrate some socio-cultural factors that affect clothing needs.
> (*Home-Economics, Secondary IV or Secondary V,* Gouvernement du Québec, 1984, p.63)

> To compare mate selection in other cultures and how it affects the individual.
> (*Family Living in Senior High Schools,* P.E.I. Dept. of Education, 19-, p.4).

In the six provinces having more than three objectives, aims, or generalizations pertinent to global understanding, the statements were present in a range of specialized courses and at various grade and ability levels. Some examples are:

From: Ontario Ministry of Education (1987)
Family Studies.

> To help students develop an understanding of some world-

> wide nutrition issues and their effects on families. (p.51). (Grade 9 and 10).
>
> Become familiar with Canadian and international demographic data relevant to family issues (p.92). (Ontario Academic Course).

From: Alberta Education, (1987). *Junior High School Curriculum Guide Home Economics.*

> To understand the various influences on meal patterns across Canada and in other countries and cultures. (p.80). (Grade 9).
>
> To accept that ideas about child care differ in different historical eras and cultures. (p.47). (Grade 8).
>
> Examine similarities and differences in families from generation to generation and from culture to culture, and develop respect for other lifestyle patterns. (p.25). (Grade 7).

From: Saskatchewan Education (1983). *Home Economics 30, Clothing and Fashion.*

> Identify and compare the conditions and resources of a selected geographical area with textile products produced and used (p.11).

Seven of the ten provinces whose home economics curricula guides were analyzed had more than three references to global concepts evident in statements of content, concepts, activities or learning experiences. In some provinces having few objectives and goals containing global concepts, there were more frequent references in the content, suggested activities, and learning experiences. That is, most frequently in the curriculum guides, global concepts were present in the suggested activities and content, sometimes even when no references were present in the course objectives and aims. For example, in the curriculum guide for *Family Living 2200*, there are no global concepts evident in any of the course or unit objectives, yet two suggested activities are pertinent to a global interest:

> Do research on cultural background other than your own. Report to class on lifestyle and family patterns (p.AA2).
>
> Investigate marriage customs throughout the world. Prepare a report (p.AA6). (Newfoundland and Labrador Dept. of Education, 1983).

Therefore while these activities do not relate to any objectives in which the development of global concepts is explicitly intended, in the former example one can assume that this activity is considered appropriate to developing a general understanding of the relationship of families to the society and the relationships between individuals in families. In the latter example, this activity is suggested as appropriate to developing a general understanding of dating, courtship, engagement and marriage.

The analysis of curriculum revealed considerable scope and emphasis on certain key topics and concepts. A global interest was evident in the following conceptual areas:

Role of family members
Role of families in society
Child care
Parent and teen relationships
Dating and mate selection
Marriage practices and values, laws and customs
Wedding customs
Values
Aging and elderly
Textile crafts
Factors influencing clothing choices
Fashion standards and styles
Grooming and beauty standards
Manners
Kinds of shelter
Housing needs and wants
Home furnishings
International fashion designers
Canadian heritage cooking
Factors influencing food choices, meal patterns, diet practices.
Factors influencing protein consumption, cereal grain use.
Malnutrition
World food problems — supply, consumption
Geographic origin of foods, trade and distribution
Weather and food production
Farming methods
International agencies
Water.

Frequently suggested activities for teaching global concepts were:

preparation and study of foods from other cultures
guest speakers
interviews
research papers and projects
field trips to multicultural exhibits and centres.

Global problems

Global concepts in the home economics curricula documents analyzed tended to be present in an unproblematic way, that is, the concepts frequently were developed through comparisons of similarities and differences in various cultures or through analyses of factors influencing daily living practices. The most common global problem explored was that of world nutrition and food supply. This was explicitly a part of curricula in seven provinces. One province also specified "issues of water provision." All seven provinces included mention of the causes and origins of the problem, although in one province that was implicit rather than explicit. Five provinces included mention of solutions and remedies for the problem. Part of exploring solutions in most curricula was an understanding of international agencies and programs. Curricula in one province included creating and analyzing possible local actions which could be taken in contributing to the solution of world food problems, and one included an evaluation of general solutions to the problem.

In the curricula of two provinces there was mention of housing problems. One included problems of family maintenance and community development. One mentioned the problem of technological advance and its impact on families world wide. In two provinces these problems were specifically related to study of developing countries and the issues and impacts of diet, farming methods, migrant laborers, and infant formulas. In the two provinces dealing with these problems, both included attention to causes and solutions to the problems.

In the four provinces which gave the most explicit attention to global concepts (Saskatchewan, Alberta, Ontario and Nova Scotia), all connect concepts locally and internationally. For example, problems of "malnutrition" or the "current food crisis" are examined in Canada and the world; clothing policies in developing countries, Europe and Canada are studied; and "local and world housing problems" are explored.

Summary comments

From this analysis of curricula documents, one might at first glance conclude that home economics curricula and courses include a lot of global concepts. Certainly the potential for teaching much of the content from a global perspective is present. However, the global concepts actually present tend to cluster around a certain few topics and problems, and within only some content areas. Rather than seeing global concepts as an essential part of all concepts in home economics, they tend to be present as extras and add-ons (often in senior courses) or as optional units and topics. Thus they have an 'extra' or 'additional' rather than core status in courses. Similarly, while seven provinces had global objectives and concepts evident at the senior secondary level of courses, only two provinces had them also included at the junior secondary levels. These findings imply an uncertianty or lack of clarity within home economics about the necessity and importance of global education.

In addition, global concepts in home economics curricula have not been present on their own terms, that is, for reasons of their importance and necessity, but rather when their inclusion has served the purpose of the topics under study. This has commonly been in the areas of significance of certain major topics, in which case the inclusion of global concepts has served to arouse interest or prove importance of content rather than serve the purpose of understanding issues and questions in various cultural or national contexts. The risk associated with this approach is that it may result in reinforcing stereotypes and differences among cultures rather than understandings of the causes and connections between culture or nation and daily practices. Similarly, global concepts were more frequently present in activities and learning experiences than in stated goals and objectives for courses and units. All of the rationales and goals for the programs and courses lacked any sound educational bases for global education. Rather the reasons were based in the need to accommodate to realities in the present and future society, or to the present social and political realities within Canadian society. It appears that an area of needed research is in exploring a sound educational philosophical bases for global education. A beginning trend in the documents is to foster explicitly multicultural education and this is a beginning stage toward a global education.

A second summary comment may in part be attributable to limitations encountered in the analysis of any curriculum documents. It is important to remember, that such an analysis is of documents which may or may not be good indicators of actual teaching practice. Recently documents have followed a certain established format of goals, objectives, concepts, and activities (with some variation) and have tended not to present the content of a discipline in a problem-posing, concerns, or issues format. Thus, the treatment of all concepts, including global concepts has been consistently non-problematic in presentation. The only problems present in home economics curricula, for example, were those most commonly agreed upon, of world food, nutrition and housing. Curricula has tended not to problematize certain topics such as family finance, resource management, many aspects of housing, consumer practices, and accordingly global concepts tended not to be present in these areas. At the same time many of the courses containing these topics as well as courses in other areas of family, clothing, and foods were oriented to present coping and localized considerations, which fostered an instrumental approach to learning and excluded global concepts. At other times the goal of interpersonal and international harmony appeared to take precedence over the more controversial goals related to issues of inequities, rights, and unjust policies. It appears that if we seriously believe in the importance and necessity of global education, we will have to assist teachers in viewing their curricula in a problematizing and issue oriented way and assist them in guiding students through such deliberative processes. A serious attempt at global education challenges us to see ourselves differently in relation to our world and to change our curricula and pedagogy in fundamental ways.

Notes

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References

American Home Economics Association (1967). *Concepts and generalizations: Their place in high school home economics curriculum development.* Washington, D.C.: Author.

Cissell, William (1987). Teaching about international health in United States public schools. *Health Education,* 10-12.

Lyall, Vicki (Ed.) *Community potpourri, food and culture* Athabasca, Alberta: Author.

Peterat, Linda (1977). Food in a changing world. *Home Echoes, 16*(2), 56-57.

Wilk, Janet (1987). A case in point: China. *Illinois Teacher of Home Economics, 31*(2), 91-97.

Toward Defining a Place for Research in Art and Aesthetics in Home Economics

Marlene Cox-Bishop

Abstract

In home economics at the university level, emphasis on the quantitative aspects of learning about our world and ignoring the qualitative aspects has meant an overvaluing of science and a consequent undervaluing of the arts and humanities. This imbalance has important consequences, not only for home economics students, but for professionals as well. The place of art and aesthetics in the education of home economists has been relegated to a position of secondary importance, with the result that our graduates are visually calloused and their frames of reference are often narrow. Education in art in the context of home economics can aid in restoring to the field of home economics the broad focus and multifaceted knowledge required in the community today.

Résumé

Dans le domaine des sciences de l'économie familiale, au niveau universitaire, l'accent sur les aspects quantitatifs de l'apprentissage et l'ignorance des aspects qualitatifs se traduit par une surévaluation de la science et, conséquemment, une sousévaluation des arts et sciences humaines. Ce déséquilibre comporte des effets importants non seulement pour les étudiants en sciences de l'économie familiale mais aussi pour les professionnels. La place de l'art et de l'esthétique dans l'éducation des professionnels du domaine a été reléguée au second plan. Résultat: nos diplômés se retrouvent indifférents et affichent un cadre de référence étroit. L'éducation artistique dans le contexte des sciences de l'économie familiale peut contribuer à ramener au milieu la vaste orientation ainsi que la connaissance polyvalente requises dans notre communauté moderne.

The arts and humanities in home economics university curricula have been relegated to a secondary position of importance relative to science. The result has been that education of home economics professionals is limited in terms of developing the qualitative aspects of knowledge. Further, university education in home economics has been, and is now, guilty of side stepping the metaphorical and affective side of human existence. It is the opinion of the author that our graduates are calloused to the visually poetic in life and therefore, only partly educated. Because education in art relies on a synthesis of the work of the hand and the work of the mind, art can aid in promoting a broad perspective in the field of home economics; a frame of reference for home economists in which the humanities and the sciences are synergistic parts of the whole.

Patricia Saidak (1986) noted in her article, "Home Economics as an Academic Science," that even at the First Lake Placid Conference in 1899, there already existed a concern with aesthetics in the rhetoric of home economics. She says:

> The emphasis on aesthetics came from two sources: a functionalism which recognized beauty in utility and a nostalgia for the natural order of a rural past in preference to the industrialized urban environment.

The Undervaluing of Art and Aesthetics in Home Economics

Again and again, home economics professionals mention the importance of art. For example, in 1959, in a statement of the philosophy and objectives of the American Home Economics Association, art and aesthetics were acknowledged as "... an integral part of everyday life" and home economists were encouraged to develop competencies to "... enrich personal and family life through the arts and humanities and through refreshing and creative use of leisure."

In an article entitled, "What is art in home economics?", David Van Dommelen (1968) wrote:

> Art in home economics is concerned with the aesthetic development of the individual and with the application of aesthetic knowledge toward the achievement of an enriched and more satisfying personal and family life.
>
> Research is a necessity of art in home economics if this discipline is to contribute ideas to individuals, teaching, and other professions (p. 775).

How is it, then, that in reality the field of home economics has evolved such a lopsided orientation — instead of equal importance attached to

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science and to the humanities, there exists an emphasis on science and on the quantitative aspects of intelligence and a concomitant neglect of art and aesthetics?

A number of home economics professionals have commented on this imbalance. Among them are Virginia Vincenti and Marjorie Brown. Vincenti (1982) notes:

> Science emphasizes the need for experts rather than for cultivated persons. In this relatively new field struggling to establish its place in academia, some home economists aligned themselves with a scientific discipline or a scientifically based specialty area rather than with the integrative profession itself. By doing so, those home economists seem to have overlooked philosophical issues common to an integrated family life.
>
> Ostensibly some believed that the scientific method of problem solving and application of the newest scientific data to problems were adequate means in themselves to improve family life.
>
> All the other themes that emerged in this research from home economics philosophy . . . seem to have been influenced by science in some way. It has proved to be as powerful and persuasive an influence on the field as it has been on American society (p. 23).

Marjorie Brown (1983) adds:

> Scientific rationalism arose as an ideological belief that empirical science was the only rational way of knowing. It was promoted by the professions at the turn of the century and was adopted by the social disciplines . . . emerging at that time." and, "Philosophical views of logical positivism strengthened the hold of the ideology. Meanings and norms from traditions of the culture were arbitrarily excluded from rational knowledge by scientific rationalism (p. 54).

The emphasis on the work of the rational logical mind and the lack of opportunity within home economics for students to address qualitative issues is distressing. The author was made acutely aware of the problem when students began to ask for a graduate program in textile design. The result was the development of systematic methods for research in art within the home economics framework.

In order to develop such a research methodology, the following questions had first to be asked: "What place does art have in home economics? Does it deserve to have a place in the field at all? Why bother to teach it, let alone conduct research in it? How can one call works of art on textiles, research? Futhermore, why persist in trying to conduct research in such a nonlinear and intuitive process; a process in which the result are not only nonverifiable but also in which there is no way of establishing validity?" There was an easy justification but it took the author some time to realize it.

There are two ways of justifying teaching and research in art in home economics; these are the contextualist justification and the essentialist justification (Eisner, 1972).

The Contextualist Justification for Art

For the *contextualist,* emphasis is placed on art that serves both the needs of the students and the needs of the society-at-large. The scenario runs something like this: persons responsible for the development of a course of study that will train and educate future home economists and/or persons responsible for setting professional goals decide what are the needs of the students and the society in which they will ultimately work and serve. The result is a series of goals for the profession. One of the stated goals of home economics is the improvement of the quality of life. Art is often seen as a method of arriving at this goal.

Although few would question the value of art in the home economics curricula, there may be disagreement as to the form and extent education in art should take to be of maximum benefit to home economics students. Do students need to develop their creative abilities? Learn to appreciate fine arts? Become skilled in the production of art forms? This is the flaw in the contextualist justification since whether, and how much, art is taught within home economics depends very much on the decision-maker's point of view at the time of curriculum formation or review and/or on the particular needs of particular students or elements in society at a particular time.

The Essentialist Justification for Art

On the other hand, the *essentialist* justifies the inclusion of art in home economics by virtue of the unique kinds of contributions to human education, experience, and understanding that only art can offer. This is the view to which this author subscribes and which is the thesis of this paper.

Some of the other reasons which have been given for including art as an area of inquiry within the field of home economics include the following.

For some, art has avocational uses; the argument being that students should be exposed to art because it will enrich their leisure time after the work of the mind is over for the day. Related to this view is the argument which holds that art is therapeutic and 'doing it' enhances mental health and alleviates the pent-up stress and frustration which may result from study in the academic areas.

Furthermore, it is widely held that art is valuable within the curriculum because it develops creative thinking which is seen as a positive product of the educational system. In addition, art is seen as useful in developing the student's understanding of academic subjects and hence is an important resource in teaching those subject areas.

It cannot be denied that art can be made to serve all of these functions — it is just that most of those claims can be made for other fields of inquiry, too, and thus, cannot properly be used to justify the inclusion of art teaching and research in the education of home economics students.

As mentioned earlier, the essentialist justification for art in the field of home economics relates to the contribution art alone can make to the education of our students. The noted educator, Elliot Eisner (1972), summarized the unique functions of art as the following:

1. Art provides a sense of the visionary in human experience by giving visual form to dreams, hopes, values, feelings, and aspirations so that others may also share these views and so articulate their own.

2. Art activates the senses causing the creator and the viewer to become aware of the real, the ordinary, and the mundane of all that we have encountered but never before seen.

3. Art reveals dimensions of social context through visual metaphor and therefore enhances appreciation of the cultural context of ourselves and that of others. (p. 9-16).

The question must be asked, can any other field of home economics inquiry claim to perform such functions? This author believes not.

Artistic learning is part of what Suzanne Langer (1957) has described as the non-discursive mode of knowing. It is learning about the world through emotion, intuition, and feeling. This mode of learning is complemented by the other way of understanding of world — the discursive mode which is characterized by scientific method, logic, and by those fields of inquiry which proceed through verbal and written language resulting in knowledge that is systematic, rational, and propositional. To develop a program of studies in home economics with too much emphasis on either mode would seem to be imprudent. Yet, this is precisely what has been done.

Before discussing some of the ramifications of this unbalanced view of the education of home economists, let us look closer at the nature of learning and inquiry in art. There are several aspects of learning in art. These can be stated as developing skills and abilities to create art forms; developing powers of aesthetic perception and criticism; and developing an ability to understand art forms in social and/or cultural contexts.

Understanding of how learning occurs in art has been enhanced by the work of Jean Piaget (Piaget & Inhelder, 1969) and other gestalt psychologists. Gestalt psychology loaned us such terms as 'percentual differentiation', 'visual constancies' and 'frame of reference', among others.

The gestalt term, 'frame of reference', when applied to home economics helps us to understand the variety of points of view which co-exist in the field. 'Frame of reference' refers to sets or structures that determine a mode of meaning and draw attention to different aspects of the world.

Eisner (1972) remarks,

> If we think of frames of reference as templates through which humans look at the world we will see that each template provides its own windows to the world, each admits some light and closes off perception in some areas. The aesthetic frame of reference is one of the templates that people learn to use when having commerce with the world. With an aesthetic frame of reference the world is viewed in relation to its formal structure and its expressive content. What is attended to in viewing a form is not primarily its economic value, or its history, or its chemical makeup, or its utility but its visual qualities and their relations (p. 69).

Although home economists are all concerned with various aspects of the provision of food, clothing, and shelter for each person and for enhancing the relationship of all people to their environments, our frame of reference, that is our particular academic bias and training, determine what point of view is adopted in solving the problems related to these areas. Thus, a textile chemist might be concerned with the physical attributes of certain dyes and chemicals as they react with certain fibers; the textile conservationist might be concerned with the long term effect of light on those same dyed fibers and the textile designer might be concerned with the color potential of certain pigments as opposed to certain classes of dyes on the fibers. The frames of reference of these three specialists determine how problem solving will be approached.

Parenthetically, if the frame of reference is too focused and narrow, there is a danger that the larger field will be lost in a process that Piaget calls 'centration'. In this author's opinion, the collective frames of reference of home economists have fallen into just that trap. The parts are becoming more important than the whole, with drastic results for inquiry and learning. This observation is echoed in the writings of Vincenti and Brown among others. Brown (1984) observed.

> In adopting the positivistic view of knowledge, the subject matter of home economics has become fragmented. If we do indeed seek to serve the family in the interests of protecting and nurturing the individual and of contributing to a democratic society, we assume that life within the family and in the family's relation to society is a fragmented and compartmentalized one. That is an extremely naive conception (p. 59).

For as home economists have become more specialized in their knowledge, and although they can bring to bear considerable expertise in a narrow area the field of home economics is in danger of distortion. Students suffer to the extent that their instructors view them only in the context of success in problem solving in one area of endeavor. On top of this, the speed with which the university setting is rushing to computer-aided teaching, assignments which do not require synthesis, automatic test grading, computer printouts of marks and forms, these are lessening the face-to-face contact of students with instructors and other colleagues with each other.

To the extent that specialization of home economists increases and that specialization is accompanied by a loss of personal contact, the field is in danger of disintegrating. A broad humane frame of reference must be developed to relate the parts to the whole — to the central mission of home economics. If the scope of concerns diminishes, if there are no common practices, if there is no common sense of identity, if home economists are not sensitive to the common ground they all stand on, then the field of home economics becomes merely a collection of experts with a stated common mission but no way of orchestrating the implementation of common goals.

A Place for Art in Home Economics

It is the view of this author that art can humanize, can teach us to see the parts of a whole and how they work together and can teach us to be more sensitive and responsive to our fellows and to our environment. Art can improve our quality of life, afford us joy. In short, some exposure to art along with science can provide a way of beginning a process through which we can educate open, sensitive, humane, responsive home economics professionals with a balanced frame of reference and a global view of the importance of all areas of inquiry in home economics, both discursive and non-discursive.

Yet, in conclusion, it seems paradoxical that this author has on occasion found herself in the rather uncomfortable position of feeling the need to justify the existence of artistic inquiry within home economics to colleagues.

Does it not seem odd that a society that builds special places to house and show off art in the form of museums and galleries and collections can find such a limited place for it in the curriculum and can acknowledge only fleetingly its ability to enhance our educational experience and develop our intellect? But these are issues for another day. ☐

Bibliography

Brown, M. (1983). Point and counterpoint: Response to "hindsight and foresight." *Journal of Home Economics 75 (1)*, 51-59.

Brown, M. (1984). Home Economics: Proud past — promising future. *Journal of Home Economics 76 (4)*, 59.

Eisner, E.W. (1972). *Educating artistic vision.* New York: The Macmillan Company.

Langer, S.K. (1957). *Problems of art.* New York: Charles Scribner's Sons.

New Directions: A statement of philosophy and objectives. American Home Economics Association, 1959.

Piaget, J. & Inhelder, Barbel (1969). *The psychology of the child.* New York: Basic Books.

Saidak, P. (1986). Home economics as an academic science. *Resources for Feminist Research 15 (3)*, 49-51.

Van Dommelen, D.B. (1968). What is art in home economics? *Journal of Home Economics, 60 (10)*, 775.

Vincenti, V. (1983). Toward a clearer professional identity. *Journal of Home Economics, 74 (3)*, 20-25.

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Historic Costume of the Island: An Analysis of Family Photographs P.E.I. Women's Fashions of the 1870s and 1880s

Ann C. MacDonald

Abstract

A selected number of photographs of Island women were analyzed to determine what the women of Prince Edward Island considered fashionable in the 1870s and 1880s. The pictures studied were family photographs brought in by students who took the Historic Costume of Atlantic Canada course at U.P.E.I. The clothing worn at that time was similar in silhouette and general details as that seen in the rest of the western world.

Résumé

Un certain nombre de photographies de femmes de l'Île du Prince-Édouard ont été analysées pour déterminer ce que ces dernières considéraient à l'époque "à la mode". L'étude s'est penchée sur des photos de familles, apportées par les étudiants inscrits au cours "Le costume historique du Canada atlantique" à l'université U.P.E.I. Les vêtements de l'époque se sont avérés semblables en silhouette et en détails à ceux portés ailleurs dans le monde occidental.

Old family photographs, stored away with care, are a wealth of information about the way people lived in years gone by, in particular the type of clothing they wore. This paper deals with the clothing worn by the women of Prince Edward Island during the 1870s and 1880s as seen in old family photos. My Historic Costume of Atlantic Canada course at U.P.E.I. provides a unique opportunity to see and study many of these old photographs, for the students do a research paper as part of the course, and many base it on their own family pictures.

The majority of photographs from the nineteenth century were professionally done so we see only the "good" clothes of the subjects, not the everyday wear. However, it can be assumed that the less formal attire followed the same general lines with similar silhouettes, skirt lengths, etc. as the garments in the photographs.

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Another thing that cannot be ascertained from these pictures are the colours of the garments, for the photographs were taken in either black and white or, in some cases, brown and white.

Quite a few of the pictures found in the old family photo albums in Island homes were taken in the Boston, Mass. area. During the latter part of the nineteenth century many young men and women from P.E.I. as well as from the other areas of the Maritimes, went to Boston to seek their fortunes (Dunn 1980). They sent home portraits of themselves as Christmas or birthday gifts. To their families they sent copies of their wedding pictures and their children's christening photos. Items of clothing, sometimes new but more often used, were frequently sent back home to younger brothers and sisters. In this way the cities and towns of the "Boston States" had their influence on the fashion of rural Prince Edward Island.

The dating of these photos was sometimes easy — the date being written on the back. This usually happened when pictures were given as gifts. Other times it was necessary to rely on the memories of older family members, usually grandparents or grandaunts/uncles, who were usually able to date the photos within a 10-15 year span.

Of the many pictures submitted by the students the following six were chosen for discussion for several reasons. First of all they were quite clear and details easily discerned. Secondly, they were all taken on the Island of Island women and last, but certainly not least, it was possible to date them quite easily.

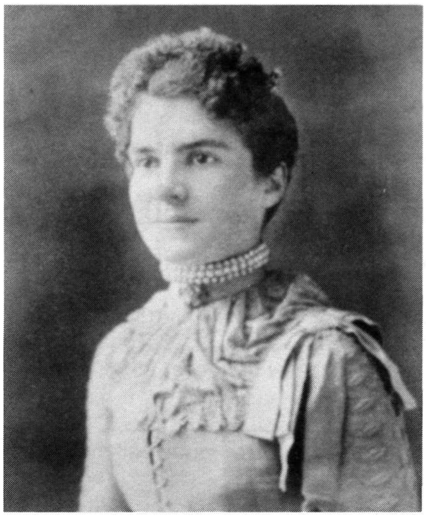


Figure 1. Early 1870s

The photographs discussed cover a period of nearly twenty years, and although each garment is unique with some very interesting individual details, there are also a number of similarities. Characteristic of the late nineteenth century all of the garments have well-fitted bodices, high necklines, straight sleeves fitted at the wrist, and full-cut long skirts with some back fullness (Collard 1975). Toward the end of the 1880s the photographs indicate that more emphasis was being placed on the skirt than was done in the 70s and early 80s.

Photos of the 1870s

A close-up photograph of a young woman (Figure 1) dated in the early 1870s, shows in clear detail a very interesting bodice.

The light colored bodice is well fitted and laced up the front. A small stand collar is accompanied by a large flat, yoke-like lace collar. This larger collar is gathered at the neckline and attached to the bodice at the outer edge in a way that causes the folds or gathers in the lace to curve toward the shoulder area. The use of lace on a garment, in small or large amounts, is seen in a great many of the pictures taken in the 1870s and 80s.

Above the stand collar the young lady wears a three-stranded pearl necklace.

On the left shoulder there is a large bow. Made of a soft fabric, it falls in line with the curve of her shoulder to the front and back.

The sleeves are not made of the same plain fabric as the bodice, but of a same colored fabric with a woven-in raised design. The motifs, somewhat the same shape as cats' eyes, are arranged in two lengthwise rows down the length of the fitted sleeve.

Two photos belonging to the Clark family of Summerside were taken in 1874 of two sisters. Both women wear two piece dresses of dark colored fabrics. The bodices are well-fitted and extend below the natural waistline to a point in front. The sleeves are long, tight and slightly puffed at the cap. One of these two photographs shows a bodice adorned with a rushe, (Robertson & Sons 1870s/Collard 1977) of the same fabric as the dress, extending from the shoulder down to the bustline. A broach is worn at the centre front opening of a small stand collar.

The sleeves have turned back satin cuffs which open in the seamline

The long skirt has the fullness controlled by tucks at the waist. There are no tucks evident in the very front of the skirt which lies under the extended part of the bodice.

The photograph of the second sister shows a dress with a much more elaborate neckline. It too, has a stand collar, one of lace. It is surrounded by a larger, flat, lace collar and a lace jabot completes the decoration. The lace is of a slightly darker collar than the rest of the costume.

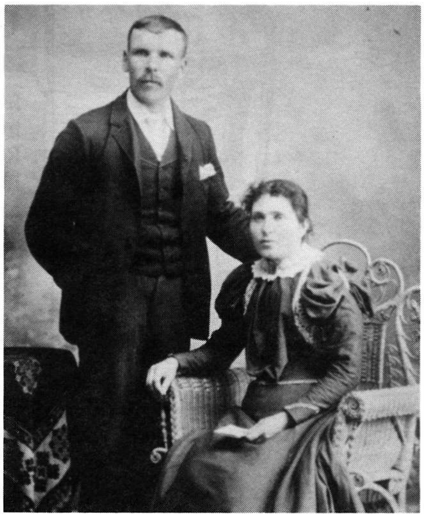
The sleeve is finished with an opening on the top side. This opening is finished with a bow.

The fullness of this lady's skirt is controlled by a series of groups of tucks. Eight narrow pleats are seen in the front, four on each side of the centre front. They are pressed toward the centre. Slightly back of the side there are four more pleats, pressed toward the back. There is a bustle effect evident at the back of this dress, a very popular detail at this time.

Photos of the 1880s

A photograph of a man and woman taken in Charlottetown (Figure 2) in the 1880s shows a two piece dress — the bottom of the bodice falls several inches below the waist and is edged in what appears to be a narrow lace.

There is quite a bit of detail on the bodice of this dress. The partial roll



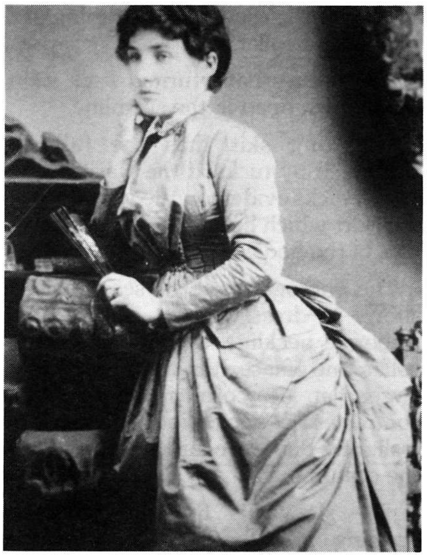


Figure 3. 1885

collar is made of lace and bolero-like lace treatment can be seen around the armscye. A double drape of fabric falls down the centre front. It appears to be one continuous piece, the ends being sewn into the neckline under the collar.

The cap of the sleeve is quite interesting, resembling a large bow with the centre gathered in with a long broach or a piece of lace. The cuff area of the sleeve is also finished with lace. It is sewn on to resemble the edge of a turned back, rounded cuff. All the lace on the garment is of a much lighter color than the dress itself which is of a medium hue.

The skirt is long and quite plain with its fullness centered at the back.

Dated 1885, a photograph (Figure 3) from the Glover family of Kensington, P.E.I. shows a style which was quite popular throughout the fashion world in the latter part of the nineteenth century — the draped apron-like overskirt. This is a most interesting design. The fabric from this draper overskirt is not only pulled up in the back to form a bustle, but also extends upward at the front to form a bib-like detail which is sewn at the top into the neckline. The fullness is controlled in the centre front by pleating held in place by two or three rows of stitching which gives a shirred effect just above the waist. The basqued bodice has six large tabs which extend down over the draped skirt. Well fitted, plain sleeves and a stand collar of gathered lace complete the costume. The outfit is of a medium color with the collar apparently white.

Another picture dated in the late 1880s also shows the trend toward more emphasis being placed on the skirt of an outfit and the use of a longer bodice. The light colored, two-piece dress has a long jacket-like bodice with long sleeves and a small, standing collar of dark lace. Above the collar a light colored, small ruffle can be seen. The dark lace decorates the front of the bodice as well.

The draped overskirt is not as full as the one previously described nor as long. In this case the tabs finish the edge of the overskirt not the bodice. But as before, the ends of the draping are arranged to form a bustle effect at the back.

The underskirt is full cut and quite plain.

Conclusion

Even in such a small sample of photographs a glimpse of the evolution of women's fashions on P.E.I. can be seen. Short bodices were replaced by long ones and by the end of the nineteeth century a great deal of emphasis was placed on the skirt and tabs joined lace as a popular form of decoration.

The women of Prince Edward Island were, indeed, in touch with fashion trends of their time. ☐

References

Collard, E. *Clothing in English Canada circa 1967 to 1907*. Burlington: Collard 1975.

Dunn, C.W. *Highland settler, a portrait of the Scottish gael in Nova Scotia*. Toronto Press 1980.

Robertson, S.J. & Bros., & Collard, E. *Guide to dressmaking and fancy work in 1870*. Burlington 1977.

Special thanks to Lisa Clark and Bonnie J. Glover and their families for permission to use their family photographs, and also to Anita Smith, Joyce Crosby and Jeannie Morrison.

GENERAL ARTICLES WANTED

The Journal needs articles for the General Section, from all areas of Home Economics. Home Economists in Education, Business, Free Lance Work, as well as Retired or those who are not employed outside the home, are asked to seriously consider writing an article for the Canadian Home Economics Journal. Many readers have interesting *suggestions* for articles . . . carry this one step further and *submit* the finished product! Guidelines for authors are available in past issues of the Journal or by contacting the Editor. Topics need not follow the theme of the Journal.

Consumer and Welfare Losses Associated with Canadian Trade Restrictions for Apparel

Margaret I. Morton and Rachel Dardis

Abstract

The economic losses associated with application of trade restrictions to Canadian apparel imports were estimated for 1984 using partial equilibrium analysis. Calculations for the analysis were based on the price level at which imports were assumed to come into direct competition with domestic production. Low and high estimates were obtained for the losses using assumptions about quota costs. Depending on the estimate considered appropriate, per capita loss could be as low as $37 or as high as $58. Estimated relative welfare losses were 14% and 46% indicating that each dollar transferred to producers could cost the economy $1.14 or $1.45. The price reductions that might be realized if the trade regulations were dismantled would range from 14% to 22%. Some policy alternatives are outlined.

Résumé

Les pertes économiques associées à l'application des restrictions d'échange sur les importations vestimentaires canadiennes pour 1984 ont été évaluées à l'aide de l'analyse d'équilibre partiel. Les calculs de cette analyse de basent sur le niveau de prix auquel les importations ont été prises en charge pour entrer en concurrence directe avec la production domestique. Les évaluations maximum/minimum pour les pertes ont été obtenues en se servant des reprises sur les coûts des quota. Selon l'évaluation jugée appropriée, les pertes per capita pourraient varier entre un minimum de 37 $ et un maximum de 58 $. Les pertes relatives de bien-être estimées étaient de 14 %, indiquant que chaque dollar transféré aux producteurs pourrait coûter entre 1,14 $ et 1,45 $ à l'économie. Les diminutions de prix possibles si les règlements d'échange étaient abolis varieraient entre 14 % et 22 %. L'article décrit quelques politiques alternatives.

The Canadian apparel industry has faced severe competition from imports, especially those from "low-cost" countries such as Hong Kong, Taiwan, and South Korea since the 1960s. More recently China has joined these countries as a major source of clothing imports. This competition has resulted in severe deterioration of the Canadian apparel industry and has engendered the industry to seek government action that would deter further erosion (COGIT International, 1979; Textile and Clothing Board, 1985).

The government eventually responded by placing quantitative restraints on imports of clothing and initiated programs to aid the industry and displaced workers (Textile and Clothing Board, 1985). These actions have had consequences for consumers, as well as for business, industry, and labor. The objective of this paper is to review the effects of trade restrictions on apparel costs and to provide insights into resulting economic losses to the Canadian economy. The losses were estimated by application of partial equilibrium analysis to apparel consumption data for 1984. Other factors such as inflation and monetary policy which may also influence the losses were not considered nor were losses associated with importation of fabric by the apparel industry.

Background for the Study

Canada, like most trading nations, is a signatory to the General Agreement on Tariffs and Trade (GATT) and the Multi-Fibre Arrangement (MFA). Actions taken to regulate trade must adhere to the rules contained in these treaties. If actions are taken in violation of the regulations, the injured country can seek retribution in accord with guidelines provided in the treaties (Aggarwal, 1985; Choi, Chung, & Marian, 1985).

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Canadian trade policy. The present system of trade protection for the Canadian apparel industry is a two-tier system. Goods entering the country are subject to a relatively high tariff and, in addition, imports from 23 important suppliers are subject to quantitative restraints.

Tariff levels for apparel, although reduced marginally over successive rounds of trade negotiations, remain high ranging from 13-26% (G. Blaney, Head, Trade Information Unit, International Trade Division, Statistics Canada, personal communiction, December, 1985); whereas the average tariff rate for all manufactured goods entering Canada is 8.5% (Kuzik, 1986). Because these tariff barriers have not been sufficient to stem the flood of apparel imports, quantitative restraints in the form of quotas have been used to moderate the level of imports from low-cost countries. During the 1960s and early 1970s, these arrangements were mainly applied to textiles and to some cotton apparel items. Since that time, the restraints have been mainly applied to apparel (Barry, 1983). The first major protective measure for the apparel industry was the imposition of a system of global quotas in 1976 that restricted imports of apparel to 1975 levels (Clark, 1978).

This system of control was superseded in January of 1979 by a system of voluntary export restraint agreements (VERs) negotiated with major low-cost suppliers (Clark, 1978). In general, VERs place annual limits on the number of items in each of several product categories that will be exported to Canada by the trade partner. Unlike the earlier global quotas which were administered in Canada, allocation of quotas under VERs is vested in the exporting country.

Presently, about 76% of all Canadian clothing imports are covered by bilateral agreements. The levels of restraint may not appear excessive because the total number of apparel items imported has been lower than the restraint level. The amount imported as a percentage of the total quota allotment (restraint utilization rate) was 71.5% in 1980, rose to 98.4% by 1984 and dropped back to 93.0% in 1985 (Textile and Clothing Board, 1984, p. 45; 1986, p. 30). However, since 1983, restraint utilization rates for the four major exporters have ranged between 96.7 and 100.2% (Textile and Clothing Board, 1986, p. 30). These data indicate that quota levels are the binding or limiting restraint for exports to Canada.

In conjunction with these actions, the government has also provided incentives to enable apparel firms to become more competitive by upgrading their technological capability and rationalizing product lines. Special assistance was provided through the creation of the Canadian Industrial Renewal Board (CIRB) in 1981 (Textile and Clothing Board, 1985). The Board allocated $267 million in grants to 500 textile, apparel, and footwear firms over its five-year mandate which expired on March 31, 1986 (Canadian Industrial Renewal Board, 1986).

These actions initially appeared to slow import penetration. In 1976, 44% of the apparel items consumed were imported. The proportion of imports dropped to 27% in 1979 and 1980. This decline in imports was also influenced by oversupply in the Canadian market and the recession of 1981/82. Thereafter the volume penetration of imports increased to 41% by 1984. (Textile and Clothing Board, 1985, pp. 16-19). In terms of value, imports accounted for 28% of the market in 1984 (Textile and Clothing Board, 1986, p. 36). In 1984, some $1093.9 million (68%) of these imports came from low-cost countries with Hong Kong, South Korea, and Taiwan together accounting for 54% of total imports (Textile and Clothing Board, 1986, p. 23).

Consequences of trade restrictions. This protectionist stance is not without cost to Canadians. Through tax dollars, they pay for programs such as the CIRB and, as a consequence of the trade restrictions, they pay higher prices for imported apparel. Because the price of the imported apparel is raised by tariff levies and quota restrictions, domestic producers are able to sell competing products at the same higher price. As a result, consumers also pay higher prices for domestic goods.

In the case of a tariff, the cost impact is visible and the dollar value of the price increase is easily computed. Tariff revenues accrue to the government treasury and may be used to benefit the Canadian economy. When tariffs are the only restriction, domestic producers and exporters may remain competitive since neither has a protected share of the market. However, to the extent that imports are substitutes for domestic products, tariffs result in an increase in the price of domestic apparel.

On the other hand, when quantitative restrictions are imposed, the overall supply of apparel items decreases. Although domestic producers expand their operations, the kind and quality of the production does not compensate for the decrease in imported items. Economic theory suggests that this induced scarcity leads to price increases in imported goods and ultimately in domestic goods. Such price increases are not warranted by costs associated with manufacturing and marketing; but, result because of inefficiencies in allocating quotas or because of payments made (quota premia) when quotas are traded among manufacturers.

Being included as a part of the base price, such increases are hidden from consumers. The beneficiary of the price increases depends on where and how the quota allocations are administered and on competitive conditions in the supply chain. In the Canadian case, Jenkins (1985) provides evidence for an average increase of 15% in the price paid for apparel imported from Hong Kong, South Korea, and Taiwan. Price increases reported for other countries range from 2-50% (Keesing & Wolf, 1980, pp. 104-108; Morkre, 1984, pp. 48-53; Silberston, 1984, p. 29). Further, quota premia fluctuate widely over time depending on country, product, and market conditions.

The domestic market may be further affected since exporters, in an attempt to maintain profit levels, may change the mix of exported goods and upgrade the fashion or quality of their product lines. As a result, inexpensive lines of merchandise may become scarce or disappear altogether from the market (Falvey, 1979; Hamilton, 1985; Leffler, 1982; Santoni & Van Cott, 1980).

Exporters have also been creative in modifying the nature of products so that they fall outside of the product definitions given in the restraint agreements. Recent widespread use of ramie and silk as fabric blend components in imported apparel provides evidence of this creativity. These substitute products are often more costly and may be less satisfactory in terms of performance or cost of maintenance.

Because VERs tend to guarantee export shares to specific countries, and often to specific exporters within those countries, the exporters may have limited incentive for low pricing strategies (Morkre, 1979).

Objectives of the research. The present research was undertaken to provide some insights into the cost of apparel trade policies for Canadians. Specifically the objectives were:

- to estimate the impact of Canadian trade restraints on apparel prices, and
- to estimate consumer and welfare losses attributable to the trade policies.

The estimates were made using 1984 trade data. In order to provide the range of probable losses, estimates were made using assumptions about quota prices that would provide low and high estimates of consumer loss.

Studies Related to the Costs of Protection

Studies dealing with the impact of trade restrictions on the Canadian apparel costs have been carried out for 1970 (Kelly, 1972), for 1975 (Campbell, 1981), and for 1979 (Jenkins, 1985). They indicate that the annual loss due to trade regulation has been substantial and has been a drain on consumers, particularly those with low-income levels.

Each of these studies was executed when the trade regulations governing imports were different from those existing in 1984 or when the import market was in a state of flux. The 1970 study was focussed on the cost of tariff protection, which at that time, was the primary regulatory instrument for restricting imports of apparel. The studies in 1975 and 1979 were carried out during times when the apparel import market was in a state of upheaval — just before the period of global quotas and just after their removal which coincided with the inaugural year of VERs negotiated under a revised MFA. By 1984, the time frame selected for this study, restrictive bilateral agreements with most countries had been in effect for 6 years and this regime appears likely to continue at least through 1992 when the current version of the MFA comes up for renewal.

The present study, as well as focussing on a different time period than previous studies, provides low and high estimates of losses of Canadian apparel trade policies. An important feature of the present research is that the estimates of consumer losses were made at the price/distribution level at which the foreign goods are assumed to enter into direct competition with domestic goods.

Procedure

Partial equilibrium analysis was used to estimate the losses. The analysis is based on traditional economic analysis of trade regulation under the assumption that imports are perfect substitutes for domestic products (Lindert & Kindleberger, 1982). Practical applications of this method of analysis together with discussion of the underlying assumptions are well described in the literature (Corden, 1957; Magee, 1972; Pelzman, 1983). As this analysis uses linear approximations for the demand and supply curves, the results obtained will overestimate the consumer loss if the relationships are in fact curvilinear.

Low and high estimates of the losses were calculated for the present research. They were based on assumptions related to the impact of quotas on prices paid by Canadian importers and are described in the following section.

Price assumptions. The low estimate of loss is based on the assumption that imposition of a quota does not result in a price increase by the exporters. In the case of apparel, justification for this assumption resides in the technological and competitive nature of the industry itself. The industry consists of large numbers of manufacturers in many countries. Thus importers are able to select merchandise that is competitively priced either in a country with a restrained level of exports or in a country whose exports are not subject to restraints.

The high estimate for loss is based on the assumption that restriction of quantities by VERs results in higher prices by some exporters due to quota premia.

Welfare loss models. In order to evaluate the price impact of trade restrictions, it is necessary to add transportation and distribution costs to the price of imports. In this manner the price obtained approximates the price at which the foreign goods compete directly with domestic goods at the wholesale level.

The model for the low-price estimate, Model 1, is presented in Figure 1. In this figure, DD and SS represent the quantity of domestic demand and supply respectively, while P_0, is the world price under free trade. It is assumed that the world supply curve is perfectly elastic so that Canadian importers can purchase as much as they wish without affecting the world price. The addition of transportation and distribution costs brings the price to P_1 which is the price at which the imports are sold on the Canadian market under free trade. At this price, domestic production is equal to Q_A and domestic demand is equal to Q_E. The quantity imported, Q_E-Q_A, is the difference between the quantity demanded and supplied.

Imposition of a tariff increases the price of imports to P_2 which now becomes the prevailing price level for apparel in Canada. As a result of the price increases, the quantity demanded drops to Q_F, domestic production increases to Q_B, and imports decline to Q_F-Q_B. The total consumer loss associated with the tariff is given by the area P_1P_2FE. This loss consists of two parts. The first part is an increased expenditure due to the higher prices which is equal to the areas *a*+*b*+*c*. The second part of the loss, area *d*, is the consumption deadweight loss. This loss is incurred because of the reduction in quantity (Q_E-Q_F) that consumers purchase due to higher prices (Lindert & Kindleberger, 1982).

The tariff also results in a gain to the producer (area *a*). There is also a gain from the tariff (area *c*) which accrues to the Canadian government.

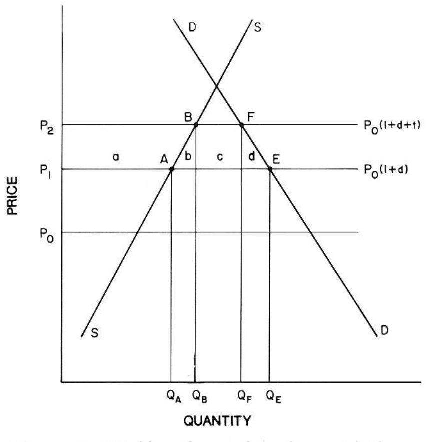

Figure 1. Welfare loss of trade restrictions: Model 1 (low estimate). (P_0 = free-trade price; $P_1 = P_0$ + transportation costs; $P_2 = P_0$ + transportation and tariff costs).

The absolute welfare loss from the tariff is obtained by deducting the producer gain and the tariff revenue gain from the consumer loss. This loss therefore consists of the consumption deadweight loss (area *d*) and area *b*. Area *b* is the production deadweight loss or loss from reliance on expanded domestic production (Q_B-Q_A) when imports were available at a lower price (P_1). The absolute welfare loss represents the gain that would accrue if the tariff were eliminated. There is no gain from elimination of the quota in this model since it is assumed that the quota has no impact on the prices paid by Canadian importers.

The welfare loss may also be expressed as relative welfare loss by dividing the absolute welfare loss by the producer gain. For example, an absolute welfare loss of $2 million accompanied by a producer gain of $5 million translates into a relative welfare loss of 0.4. This means that it costs the economy 40 cents for every dollar transferred to producers. The higher the relative loss, the higher the transfer cost of aiding domestic producers and the more inefficient the program of support.

The model for the high-price estimate, Model 2, is shown in Figure 2. In this case, the price to Canadian importers, P_0, is assumed to include quota premia. Therefore, the true free-trade price, P_F, is obtained by subtracting the quota premia from P_0. This free-trade price becomes the price that is adjusted for transportation and distribution costs to yield P_1, the price at which imports would compete with domestic goods under free trade. Again, Q_A and Q_E are the quantities supplied and demanded at this price with imports accounting for the difference between domestic demand and supply.

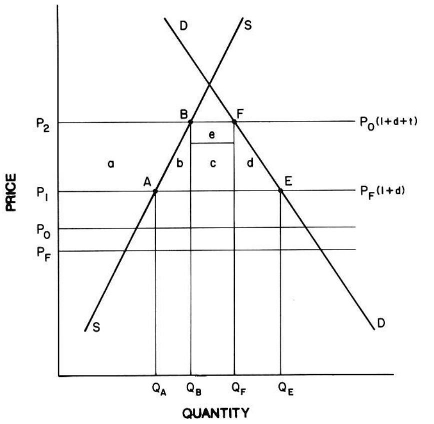

Figure 2. Welfare loss of trade restrictions: Model 2 (high estimate). (P_F = free-trade price; P_0 = free-trade price + quota premia; $P_1 = P_F$ + transportation costs; $P_2 = P_0$ + transportation and tariff costs).

The price under a tariff/quota system is equal to P_2 which reflects the quota premia and tariff costs in addition to the transportation and distribution costs. As a result, imports fall to Q_F-Q_B reflecting the decrease in quantity demanded and the increase in domestic supply.

The consumer loss is equal to the area P_1P_2FE and is similar to the loss described earlier for Model 1. There is also a producer gain (area *a*) and a tariff revenue gain (area *c*) which must be deducted from the consumer loss to yield the absolute welfare loss. The loss consists of the quota premia loss (area *e*), the production deadweight loss (area *b*), and the consumption deadweight loss (area *d*). Derivation of the quota premia loss is explained in more detail in the next section. The relative welfare loss is obtained in the same manner as for Model 1.

Model 2 may also be used to estimate the separate impact of tariffs and quotas. The welfare loss due to the tariff is based on the free-trade price (P_F). In this case, the pre-tariff price in the Canadian marketplace is $P_F(1 + d)$ where *d* represents transportation and distribution costs and the post-tariff price is $P_F(1 + d + t)$ where *t* represents the ad valorem tariff rate. The post-tariff price for this calculation is lower than the post-tariff/quota price for Model 1 because omission of the quota premia would reduce the price level on which tariff revenue and transportation and distribution costs are assessed from P_0 to P_F. Deduction of the absolute welfare loss for the tariff from the total loss yields the absolute welfare loss for the quota.

Estimation of welfare losses. The welfare loss for Model 1 (Figure 1) was estimated using the change in price due to tariffs and quotas and price elasticities of demand and supply as follows:

Production deadweight loss (PDL) = area $b = 1/2\ n_S r^2 V_S$ where:

n_S = price elasticity of supply at point B

$r = (P_2-P_1)/P_2$, the proportional change in price, and

$V_S = P_2Q_B$ or value of domestic production.

Consumption deadweight loss (CDL) = area $d = 1/2\ n_d r^2 V_D$, where:

n_d= price elasticity of demand at point F, and

$V_D = P_2Q_F$ or value of domestic consumption.

Producer gain = area $a = rP_2Q_B$-PDL, where:

$P_2Q_B = V_S$

Tariff revenue gain = area $c = r(Q_F$-$Q_B = r(V_D$-$V_S)$

Consumer loss = areas $a + b + c + d = rP_2Q_F$ + CDL

where:

$P_2Q_F = V_D$

The same procedure was used to estimate the production deadweight loss, consumption deadweight loss, and the producer gain for Model 2. The areas *c* and *e* (Figure 2) are now given by $r(V_D$-$V_S)$ while the tariff revenue gain is equal to tV_m where V_m is the customs value of the imports (i.e., the value on which the tariffs are paid) and t is the ad valorem tariff rate.

Loss estimates for the tariff alone were based on quantity changes due to the tariff where such changes were derived from price data, the price elasticities of demand and supply at points B and F in Figure 2, and the values of domestic production and consumption corresponding to these points.

Data used in the analysis. The data needed to estimate the losses for Model 1 were the value of domestic production, the customs value of imports, transportation and distribution costs, ad valorem tariff rate, and the price elasticities of supply and demand for apparel in Canada. Estimates for Model 2 required, in addition, an estimate of the quota premia. Values associated with these categories are described below.

- **Value of domestic production.** The value of domestic production for the study, $4032.87 million, is the difference between domestic shipments and exports calculated from Statistics Canada data (Statistics Canada, International Trade Division, 1985, p. 50; Manufacturing and Primary Industries Division, 1985, p. 14).

Table 1. Estimation of Import Prices: Model 1

Price/Description	Price $	Total Value million $
P_0 Estimated price of imports	1.000	1522.06
P_1 $P_0 (1 + d)$ where d represents the 30% transportation and distribution costs	1.300	1978.68
P_2 $P_0 (1 + d + t)$ where t represents the 21.3% ad valorem tariff rate	1.513	2302.88

- **Customs value of imports.** The value of imports for 1984 was obtained from data published by Statistics Canada, International Trade Division (1985, p. 38). These values were adjusted to account for the Revenue Canada practice of inflating the invoice price of goods coming from South Korea (Revenue Canada, 1983a), Taiwan (Revenue Canada, 1983b), and Hong Kong (Revenue Canada, 1984) for customs duty calculations. This procedure resulted in an estimated invoice value of $1522.06 million, $207.24 million below the published customs value. It was considered reasonable to make this adjustment since the value for duty since January of 1985 has been the transaction or invoice value.
- **Transportation and distribution costs.** The charges for transportation, distribution, insurance, and wholesale markups were estimated as 30%. This figure was based on estimates used in previous research related to apparel imports into Canada (Jenkins, 1985) and into the United States (Council on Wage and Price Stability, 1978; Dardis & Cooke, 1984).
- **Tariff rate.** A trade-weighted, ad valorem duty rate of 21.3% was used. This value was based on tariff revenue data for 1984 obtained from Statistics Canada, (G. Blaney, personal communication, December 19, 1985).
- **Price elasticities.** The price elasticities of demand and supply were estimated using a price elasticity of demand for clothing imports for Canada equal to 3.15 (Yadav, 1977). The procedure outlined by Magee (1972) was used for the calculation. The resulting values were 0.5 for the elasticity of demand and 1.04 for the elasticity of supply. These values are similar to those used in the Jenkins' study (1985).
- **Quota premia.** The data provided in the Jenkins' study (1985) suggest average quota premia of around 15% for Canadian imports from the three important Asian suppliers for selected months in 1979 and 1980. As these countries provide 54% of Canadian clothing imports, a weighted price increase of 10% was chosen to represent quota premia for the present study. This value, set at two-thirds of the average increase observed in the Jenkins' study, reflects the fact that 68% of the imports come from low-cost sources where exporters may be in a position to increase the export price. While this value may be low, it was considered reasonable given the competitive nature of the industry.

Results

Data estimates for the analysis. The price impact of trade policies based on the assumption of zero quota premia (Model 1) is given in Table 1. The estimates reveal that costs associated with an item whose invoice price is $1.00 would be 30 cents for transportation and distribution, and 21.3 cents for customs duties. Thus imported apparel having an invoice value of $1522.06 million has a value of $2302.88 million at the point of entry into competition with Canadian apparel. Adding the value of domestic production gives $6335.75 million as the estimate for domestic consumption.

The price impact of trade restrictions assuming quota premia of 10% (Model 2) is given in Table 2. In this case, an item sold to a Canadian importer for $1.00 would have an actual free-trade price of 90.9 cents. This product would sell for $1.182 in the Canadian marketplace under free trade. However, the price under trade restrictions is $1.513. Elimination of the quota would decrease the price to $1.375 reflecting a price increase due to the tariff alone.

The total value of imports under the tariff/quota system is estimated as $2,302.88 which is identical to that given for Model 1. The difference in the models pertains to the free-trade market price in Canada which is $1.182 for Model 2 compared with $1.30 for Model 1.

Estimation of consumer and welfare losses. The consumer and welfare losses for Model 1 are given in Table 3. The total consumer loss is estimated as $923.42 million. Transfers to producers ($526.25 million) and to the Canadian government ($324.20 million) account for 92% of the consumer loss. Deduction of these transfer payments from the consumer loss gives an absolute welfare loss of $72.97 million. The associated relative welfare loss is 14%.

The loss estimates for Model 2 are given in Table 4. The estimate for consumer loss is $1462.29 million while producer gain and tariff revenue gain are $781.97 million and $324.20 million respectively. These transfers now account for 76% of the total consumer loss. The absolute welfare loss is $356.12 million while the relative welfare loss is 46%. These losses are considerably higher than those

Table 2. Estimation of Import Prices: Model 2

Price/Description	Price $	Total Value million $
P_0 Estimated price of imports	1.000	1522.06
P_F Estimated price of imports adjusted for a 10% quota premia	0.909	1383.55
P_1 $P_F (1 + d)$ where d represents the 30% transportation and distribution costs	1.182	1799.07
P_2 $P_0 (1 + d + t)$ where t represents 21.3% ad valorem tariff rate[a]	1.513	2302.88

[a] Elimination of the quota would give a P_2 value equal to $P_F (1 + d + t)$ or 1.375

Table 3. Estimated Consumer and Welfare Losses: Model 1

Component[a]	Loss or Gain million $
Consumer loss (*a* + *b* + *c* + *d*)	923.42
Producer gain (*a*)	526.25
Tariff revenue gain (*c*)	324.20
Production DWL (*b*)	41.57
Consumption DWL (*d*)	31.40
Absolute welfare loss (*b* + *d*)	72.97

[a] Letters in parenthesis refer to areas shown in Figure 1.

obtained for Model 1 and reflect the higher price of the tariff (33.1 cents vs. 21.3 cents, the differences between P_2 and P_1 from Table 2 and Table 1 respectively) plus retention of the quota premia by foreign suppliers.

The distribution of welfare loss and producer gain between tariffs and quotas for Model 2 is given in Table 5. The estimate for absolute welfare loss for the tariff is about $13 million lower than that obtained for Model 1. The smaller absolute welfare loss in this instance reflects the lower world price (P_F as opposed to P_0) of Model 2. The resulting relative welfare loss for the tariff is similar to that obtained for Model 1 where it was assumed that the quota would have no price impact.

In contrast to the results for the tariff, the estimated absolute welfare loss for the quota is extremely high. It accounts for more than 80% of the absolute welfare loss. In this case the relative welfare loss is 84%.

Discussion

The results presented in the previous section will be discussed as they relate to consumer losses, welfare losses, and government policy.

Consumer losses. The estimated losses for the trade restrictions presented in Tables 3 and 4 give insights into the portion of apparel expenditures that may be attributed to the trade restrictions. If export prices exclude quota premia (Model 1), then trade restrictions increased apparel expenditures by 16.4% in 1984. This translates to an additional outlay of about $37 for each Canadian. On the other hand, if the export prices include quota premia (Model 2), then trade restrictions increased apparel expenditures by 28% or an additional outlay of almost $58 per capita.

As the evidence presented in the literature suggests that export prices from major low-cost suppliers include quota premia (Jenkins, 1985; Keesing & Wolf, 1980; Morkre, 1984; Silberston, 1984), Model 2 is probably closer to the true situation than Model 1. It is likely that even Model 2 underestimates the losses involved in protecting the apparel industry as only those losses associated with the price increases are estimated. An additional consumer loss emanates from trade diversions that occur as exporters trade up to compensate for the smaller quantities they are allowed to export under their quota allotment.

Although the results in the present study are not directly comparable with any of the previous studies, it is enlightening to compare consumer losses for Model 2 for 1984 with those estimated by Jenkins (1985) for 1979. The total consumer loss he reported was $777.9 million which translates to a per capita cost of $33.85. Conversion to 1984 prices on the basis of a 34.56% rise in the Consumer Price Index for Clothing between 1979 and 1984 (Statistics Canada, Prices Division, June 1985) brings Jenkins' estimate of loss to $1046.8 million compared with $1462.3 million found in the present study. His per capita estimate becomes $46 compared with $58 for the present study. Thus both overall consumer loss and extra individual outlays resulting from the trade restrictions appear to have increased over the 5-year period.

Welfare losses. Examination of the welfare losses gives insight into the costs associated with protecting the apparel industry. Because quotas on exports to Canada are assumed to be binding, it is appropriate to focus on Model 2. The estimated relative welfare loss of 46% (Table 4) means that each $100 transferred to Canadian producers entails a transfer cost of $46 (i.e., it costs the economy $146 for each $100 transferred to Canadian producers). When this loss is distributed between tariffs and quotas (Table 5), the estimated relative welfare loss for the quota alone implies that it costs the economy $184 for each $100 transferred to producers under this sytem of protection whereas the comparable cost for the tariff is $114. The greater relative welfare loss for the quota indicates that the quota system is an inefficient way of protecting the industry. Elimination of the quota would result in a welfare gain of $296 million, and prices paid by Canadian consumers would be reduced by 9% ($1.513 declines to $1.375) if such gains were not retained by the importer/retailer.

Table 4. Estimated Consumer and Welfare Losses: Model 2

Component[a]	Loss or Gain million $
Consumer loss (*a* + *b* + *c* + *d* + *e*)	1462.29
Producer gain (*a*)	781.97
Tariff revenue gain (*c*)	324.20
Quota loss (*e*)	179.67
Production DWL (*b*)	100.42
Consumption DWL (*d*)	76.03
Absolute welfare loss (*b* + *d* + *e*)	356.12

[a] Letters in parenthesis refer to areas shown in Figure 2.

Policy alternatives. Policy measures espoused by the government depend on political feasibility, pressures exerted by interested parties, and political priorities (Mahon, 1984, pp. 63-94). The government, however, does not have free choice of policy actions being bound to honor provisions of the GATT and the MFA. Failure to do so opens the door to penalties and retaliatory actions by exporting countries. It is also important to recognize that gains from a reduction

Table 5. Distribution of Cost Components between Tariffs and Quotas: Model 2

Component	Producer Gain million $	Absolute Welfare Loss million $	Relative Welfare Loss
Tariff alone[a]	431.34	59.58	0.14
Quota[b]	350.63	269.54	0.84
Tariff + quota[c]	781.97	356.12	0.46

[a] Based on estimated free trade price of $0.909 and 21.3% ad valorem tariff rate.

[b] Values for absolute welfare loss and consumer gain obtained by subtracting tariff values from tariff + quota values.

[c] From Table 4.

in trade restrictions would initially accrue to the importer and may or may not be passed on to the consumer.

A policy option that is open to the government is the abandonment of all protective measures for all countries. Using the loss estimates from the present study, this option would give an overall reduction in apparel prices of 28%. The government is unlikely to take this action because domestic production would decline from Q_B to Q_A (Figure 2) with serious consequences for both producers and employees.

Examination of the employment problem in previous research (Jenkins, Glenday, Evans, & Montmarquette, 1978; Glenday, Jenkins, & Evans, 1982) suggests that most workers now employed in the apparel industry would be able to find employment elsewhere. If this were not the case, Jenkins (1985, p. 40) intimates that payment of salaries to displaced workers in the form of unemployment benefits would be better in economic terms than preserving jobs using quota policies.

An alternative means of giving the present level of support to producers but at a lower cost to the economy would be via government grants or subsidies to Canadian producers (i.e., subsidies equal to areas *a* and *b* in Figures 1 or 2) together with removal of the tariffs and quotas. Consumers would then pay the lower P_1 price for both domestic and imported goods. Payment of such subsidies would shift the cost of protecting the industry from consumers to taxpayers, thereby relieving low-income consumers of the burden of the price increases. In addition, Canadian consumers would not be forced to subsidize foreign producers through transfer of the quota premia ($179.67 million, Table 4).

Subsidies, however, are viewed as unfair trade practices under the GATT and would leave Canada open to retaliation by trading partners (Barry, 1983). Even if this were not the case, the government is unlikely to favor a policy that requires an annual expenditure of $882 million (Table 4) over the present tariff/quota regime where there are no government costs (except those for administration of the program) and there is some offsetting gain from tariff revenue.

Additionally, producers usually do not favor subsidies because the level of support is a matter of public record and open to greater scrutiny than are gains hidden under tariff barriers and quota restrictions.

Other policy options that would reduce consumer losses reside in stepwise removal of the trade restrictions. As a part of its commitment to GATT, the government has lowered the tariff barriers by minimal amounts over the past decade. However, this action has had little effect on consumer losses because quota restrictions were introduced and gradually became more restrictive.

The proposed free-trade agreement with the United States involves a policy move in this direction. If implemented, tariff barriers on apparel of U.S. origin will be gradually reduced to zero over a 10 year period beginning in 1990 (International Trade Communications Group, 1987, pp. 13-15). The impact of this measure on consumer losses is difficult to estimate. Although not subject to quota restrictions, the level of apparel imports from the United States has been declining over time and represents a small proportion of total imports (8% in 1984 according to the Textile and Clothing Board, 1986, p. 23). The gains under free trade could rise above 8% if products could be imported from the United States at lower prices than prevail for domestic production or for apparel imported from other countries.

As greater welfare losses are associated with quotas, a decision to dismantle the system of quantitative restraints would be more beneficial to the economy. If the quota restrictions were removed, there would be a welfare gain of $296.54 million. In addition there would be a price reduction of 9%.

If the government were not willing to take this step, an alternative policy, although not one that would provide lower prices to Canadian consumers, would be administration of the quota allocations within Canada. This would, at least, ensure that the quota premia portion of the welfare loss would remain in Canada and be of benefit to the Canadian economy rather than be paid to firms in a foreign country. Such a change would be difficult to achieve as it would require either co-operation of the trading partners when bilateral agreements are renegotiated or modification of the provisions of the MFA.

The status quo is also a policy option, but not one that would see a reduction in consumer losses. Under the present policy the industry might be able to retain its current productive capacity and labor force disruptions might be avoided. However, it is not certain that maintaining the status quo would have this outcome as new low-cost producers continue to enter the export market. As a signatory to the MFA, Canada is required to provide entry-level quotas to new exporters (Choi et al., 1985) which could prove harmful to the domestic industry. Future consumer losses under a status quo policy would depend on the source and quantity of imports and might increase or decrease depending on market conditions.

There is no easy solution to reduction of consumer and welfare losses as the alternative courses of action create problems for producers and workers or are not feasible given the provisions of the international trade agreements.

Summary

This study has shown that the direct loss associated with the trade restrictions on apparel is high. Depending on which model is espoused, trade restrictions were estimated to account for 14% to 22% of the prices paid for clothing in 1984. This estimate does not reflect the higher prices consumers pay for substitute items when low-cost items become scarce (because exporters utilize quotas for higher priced items); nor, does it reflect the cost of tariffs levied on fabric imported for items of domestic manufacture.

The government could reduce this drain on the economy by modification of the present system of protection. If the government were willing to dismantle the bilateral trade agreements, Canadians would be left with a tariff-only regime which would result in an average decline in the price of apparel of 9% and would not involve any transfers to foreign producers. Consumer benefits from such a price decline would depend on whether the gain was retained by the importer or passed on to the retailer or consumer.

Such action would be disruptive to producers and workers and might be a socially undesirable course of action unless the federal government were willing to develop programs to assist displaced workers and aid producers in developing new entrepreneurial endeavors. These programs would be costly for the economy, at least in the short term, as the burden of payment would fall on the taxpayers.

The cost of trade regulation is an area that should be of concern to home economists and consumer educators. They should develop educational programs that would alert consumers to the losses associated with trade regulation and to the distribution of these losses within the Canadian economy and to foreign trading partners. The dilemma of the government in moderating consumer, producer, and worker interests could be explained along with the variety of policy changes that might ease the economic burden. ☐

References

Aggarwal, V.K. (1985). *Liberal protectionism: The international politics of organized textile trade.* Los Angeles: University of California Press.

Barry, E. (1983). The changing framework for textile trade policy. *Canadian Textile Journal, 100*(8), 19-23.

Campbell, C. (1981). *The impact of barriers to clothing imports on Canadian consumers and the Canadian economy.* (Mimeograph, working document). Ottawa: Consumer and Corporate Affairs.

Canadian Industrial Renewal Board. (1986, May 16). *Update of the fourth and final annual report: November 2, 1981-March 31, 1986.* Montreal: Author.

Choi, Y.-P., Chung, H.S., & Marian, N. (1985). *The Multi-Fibre Arrangement in theory and practice.* London: Frances Pinter.

Clark, P. (1978). Apparel import quotas: Canadians are recognizing the need to maintain a strong apparel industry. *Canadian Apparel Manufacturer,* 2(4), 30-32, 37.

COGIT International. (1979). *The eighties and beyond: The apparel industry in transition.* (Report to The Textile and Clothing Board). Ottawa: Author.

Corden, W.M. (1957). The calculation of the cost of protection. *Economic Record, 33,* 29-51.

Council on Wage and Price Stability. (1978). *Textiles/apparel: A study of the textile and apparel industries.* Washington, DC: International Trade Commission.

Dardis, R., & Cooke, K. (1984). The impact of trade restrictions on U.S. apparel consumers. *Journal of Consumer Policy, 7,* 1-12.

Falvey, R.E. (1979). The composition of trade within import-restricted product categories. *Journal of Political Economy, 87,* 1105-1114.

Glenday, G., Jenkins, G.P., & Evans, J.C. (1982). *Worker adjustment policies: An alternative to protectionism.* Ottawa: North-South Institute.

Hamilton, C. (1985). Voluntary export restraints and trade diversion. *Journal of Common Market Studies, 23,* 345-355.

International Trade Communications Group. (1987). *The Canada-U.S. free trade agreement.* Ottawa: Department of External Affairs.

Jenkins, G.P. (1985). *Costs and consequences of the new protectionism: The case of Canada's clothing sector* (2nd ed. rev.). Ottawa: North-South Institute.

Jenkins, G.P., Glenday, G., Evans, J.C., & Montmarquette, C. (1978). *Trade adjustment assistance: The costs of adjustment and policy proposals.* Ottawa: (Report prepared for Department of Industry, Trade, and Commerce).

Keesing, D.B., & Wolf, M. (1980). *Textile quotas against developing countries.* London: Trade Policy Research Centre.

Kelly, M.G. (1972). *The effects of protection for Canadian textiles* (Discussion Paper No. 82). Vancouver: University of British Columbia, Department of Economics.

Kuzic, C.S. (1986). Free trade and the Canadian apparel industry. *Canadian Apparel Manufacturer, 10*(4), 12-20.

Leffler, K.B. (1982). Ambiguous changes in product quality. *American Economic Review, 72,* 956-967.

Lindert, P.H., & Kindleberger, C.P. (1982). *International economics* (7th ed.). Homewood, IL: Irwin.

Magee, S.P. (1972). The welfare effects of restrictions on U.S. trade. *Brookings Papers on Economic Activity, 3,* 645-707.

Mahon, R. (1984). *The politics of industrial restructuring: Canadian textiles.* Toronto: University of Toronto Press.

Morkre, M.E. (1979). Rent-seeking and Hong Kong's textile quota system. *Developing Economies, 17,* 110-118.

Morkre, M.E. (1984). *Import quotas on textiles: The welfare effects of United States restrictions on Hong Kong: An economic policy analysis.* Washington, DC: Federal Trade Commission.

Pelzman, J. (1983). Economic costs of tariffs and quotas on textile and apparel products imported into the United States: A survey of literature and implications for policies. *Weltwirtschaftliches Archiv, 119,* 523-542.

Revenue Canada, Customs and Excise. (1983a). *Value for duty of wearing apparel originating in or exported to Canada from Korea* (Memorandum D13-3-1). Ottawa: Author.

Revenue Canada, Customs and Excise. (1983b) *Value for duty of wearing apparel originating in or exported to Canada from Taiwan* (Memorandum D13-3-2). Ottawa: Author.

Revenue Canada, Customs and Excise. (1984). *Value for duty of wearing apparel originating in Hong Kong* (Memorandum D13-3-3). Ottawa: Author.

Santoni, G.J., & Van Cott, T.N. (1980). Import quotas: The quality adjustment problem. *Southern Economic Journal, 46,* 1206-1211.

Silberston, Z.A. (1984). *The Multi-Fibre Arrangement and the UK economy.* London: Her Majesty's Stationery Office.

Statistics Canada, International Trade Division. (1985, December). *Summary of Canadian international trade* (Catalogue 65-001, Vol. 39). Ottawa: Minister of Supply and Services.

Statistics Canada, Manufacturing and Primary Industries Division. (1985, December). *Inventories, shipments and orders in manufacturing industries* (Catalogue 31-001, Vol. 39). Ottawa: Minister of Supply and Services.

Statistics Canada, Prices Division. (1985, June). *The consumer price index.* Ottawa: Minister of Supply and Services.

Textile and Clothing Board. (1984). *Report on textiles and clothing.* Ottawa: Minister of Supply and Services.

Textile and Clothing Board. (1985). *Textiles and clothing inquiry* (Vol. 1). (Report to Minister of Regional Industrial Expansion). Ottawa: Author.

Textile and Clothing Board. (1986). *Report on textiles and clothing.* Ottawa: Minister of Supply and Services.

Yadav, G. (1977). Variable elasticities and non-price rationing in the import demand function of Canada, 1956:1-1973:4. *Canadian Journal of Economics, 10,* 702-712.

Book Reviews

If you are interested in reviewing a book, please contact the Book Review Editor, stating your area of interest. A complimentary book which may be kept will be sent to you for review.

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A History of Hand Knitting by Richard Rutt. (1987). Loveland, Colorado. Interweave Press. 246 pages.

Richard Rutt has given knitters and historians a long-awaited book. The craft of knitting is pursued by millions of people throughout the world, and was assumed to be a craft of antiquity, but Rutt informs us that "Weaving is older than history. The apparently simple process of knitting turns out to be much less ancient" basing this statement on the fact that he could find no word meaning "knit" in any language dating from Biblical times.

A History of Hand Knitting does not set out to teach knitting or give patterns, but it is possible for a skilled knitter to follow the graphs which Rutt has included as illustrations of various garments to be found in museums. The one pattern given is Rutt's translation of the earliest extant English knitting pattern (for a pair of hose) printed in London in 1655.

Rutt dispels many of the myths that knitters have cherished through the years — that Christ's inner garment was knitted was an accepted fact because the bible mentioned that it was seamless, but Rutt assures the reader that this was a woven garment open at one side. Most knitters are aware of the story that the mothers on the Isles of Aran off the coast of Ireland made a mistake in each sweater she knit, so that if a drowned body was washed ashore, identification could be made through the knitting. Now Rutt has researched the Aran patterns and the earliest one known is dated 1937, and the romantic tale is only that, no more.

Most of Rutt's research is concentrated on the knitting of Great Britain, with short histories of the Scandinavian and Eastern Countries. Very little is said of knitting in the United States or Canada other than the mention that America is the home of modern, adventurous knitters, and Canada is the home of Mary Maxim. This is one area where the interested knitter/researcher could find new areas of research.

Rutt uses the English "jumper" for sweater and "recipes" and even "receipts" for instructions, but the North American reader can easily follow this quaint usage.

Any student interested in researching the history of this useful craft will find Bishop Rutt's book invaluable. The appendices and index will be of particular help in understanding the historical usage of words and in finding more information on this chosen subject. This book will most likely be found in the library rather than on the book-shelf except for those comparatively few avid knitters who are avid historians.

Reviewed by:
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Opportunities in Home Economics Careers by Rhea Shields and Anna K. Williams. (1988). Lincolnwood, Illinois; VSM Career Horizons, 147 pages.

Junior and senior high students wanting to learn more about career opportunities in home economics may find this book helpful. The authors have attempted to provide a broad overview of the profession and employment opportunities related to it.

Ten of the twelve chapters of the book are devoted to discussions of employment opportunities in various fields. These include interior design, business, family relations, human services, dietitic programs, hospitality, education, family economics and fashion merchandising, and design. Each chapter highlights typical job prospects, training and/or skills needed, salaries and organizations to contact for information. Because the descriptions are brief, the reader may be misled about the particular scope of a position, but the authors do attempt to provide insight into the day-to-day practical aspects of a job.

Sample profiles at the end of each chapter which use both male and female models also provide a more realistic perspective of the career.

The major drawback of the book for Canadians is its American content. Readers are encouraged to contact American institutions and associations for further information. Salaries are also listed in American dollars so that readers may obtain a distorted view of potential opportunities.

The author's view of potential employment opportunities is also optimistic. Provided home economists are the self-starters and risk-takers they suggest, the job opportunities will abound. The test will be in the home economist's abilities to adapt to a changing environment and to sell their skills to employers. Although the authors touch on this factor in the final chapter related to marketing home economics, it may not have been stressed enough throughout the book.

Overall the book is easy-to-read. Information is brief and practical. Each chapter begins with a photograph related to a career being discussed in that chapter. Suggested additional readings are also included at the end of each chapter. For a young person considering a career in home economics, this book is a good starting point for further reading and discussion.

Reviewed by:
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Women and Education: A Canadian Perspective by Jane Gaskell and Arlene McLaren (eds.). (1987). Calgary, AB: Detselig Enterprises Limited, 398 pages.

As a woman you may find this book interesting. As a home economist you may become angry as you read. As either a man or woman you may understand the feminist better after reading the four sections and sixteen chapters of this book.

The editors of the book have captured in print the ideas expressed at a conference on Women and Education held in British Columbia in 1986. The purpose was to introduce a debate about the forms of education appropriate to women and to show the ways in which a feminist sees education.

In the first section the role of teachers, the role of women, and the relationship between the two is explained. The history of education in Canada in nineteenth century Ontario and Quebec is set out. Another paper reviews provision for childcare. Feminine sociologists discuss how women's lives are changed by the social order and education.

Unequal access to educational opportunity is the theme of the second section. Gender differences in the use of the computer are discussed, remedies for the low enrollment by females in science classes are considered, the factors that affect the choice of education by females are set out and trends in women's access to and involvement in higher education, are examined.

The knowledge included in curriculum planning is critiqued in section three. Case studies of Mary Astel, Mary Wollstonecroft, and Virginia Wolf are used to develop a feminist perspective about curricula. The effect of early women's organizations such as the Women's Institutes and other outside the school activities is described. Some violence is exposed as the exclusion of women from decision making about education is examined. The competition of sports in the experience of females is considered. Programs in women's studies are proposed.

Finally, section four includes papers about the adult education of women. Literacy in women's world brings out the plight of immigrant women. The processes in human agencies appointed to assist women are explored and the lack of opportunity in government training programs is pointed out.

Home economists are oriented to assist individuals in the family to better meet the problems of everyday life in the home while feminists look only at women. Several authors of papers included in this book believe that home economics education perpetuates a male dominated society.

The writing in this collection is diverse. There are facts, statements, and values to make women think about their role and status. Are women better off now than twenty years ago?

Reviewed by:
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Friendship Quilts by Hand and Machine by Carolyn Vosburg Hall. (1983) Pennsylvania; Chilton Book Company, 205 pages; $19.95.

Friendship Quilts is another book in the Creative Machine Arts Series. These books, written by experienced craftspersons, are presented in a practical easy-to-read style that is designed to inspire the reader.

Carolyn Vosburg Hall is a contemporary quilter who prefers speed techniques and machine quilting methods. She also gives directions for tying or hand quilting. Information about the history of friendship quilts is included.

The book is a complete guide to planning and constructing friendship quilts. The author takes the reader step by step through designing, shopping, and completing the project. Reference is made to incorporating the principles and elements of design. Instructions are given for a number of quilt methods from applique to patchwork to fabric painting. She also shares possible problems and suggests solutions based on her experience.

Because the table of contents gives a complete description of each chapter, it is not necessary to read the entire book in order to find the information you want. An index helps locate specific details. The author includes quilt profiles described in the book. The project instructions are accompanied by illustrations and colour photos.

There are several typographical errors in the book and there are no metric measures given, which is a disadvantage for Canadians.

Friendship quilts are popular wedding, anniversary, or retirement gifts. The author suggests that a friendship quilt keeps friends together in one place for you to recall, and your descendants to wonder about. This book supplies the practical information needed to make the project a reality.

Reviewed by:
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Death in the Midst of Life by Kamerman, Jack B. (1988). New Jersey: Prentice Hall, 160 pages, paperback.

This book is an introduction to the sociological study of dying, death, grief, and mourning. The meanings of death and dying are constructed out of the values and understandings of North American culture. The behaviours relating to dying and mourning are expressions of these meanings and the social arrangements of the society.

In this long-awaited sociological perspective of death, Jack Kamerman deftly steers a neutral-valued course through an emotionally laden subject. Exploring the recent rise in public attention to death, Kamerman probes the manner in which society's view of death has changed from the sacred to the secular. Because of the change from sacred to the secular, Kamerman claims that people tend to react to finality of death by avoiding it and denying it. Funerals have become more streamlined and rationalized. In addition, death has become the property of the old. The scene of death has shifted from the home to the institution. This has isolated the dying, cut children off from exposure to death and dying, and brought dying under bureaucratic control.

After examining death, dying, grief, bereavement, and mourning, Kamerman presents specific related topics:

- Adolescent suicide
- Near-death experience
- The death of pets
- Children and death

This book is intended for use in undergraduate sociology courses on death, as well as death courses offered in other programs, e.g. psychology, nursing, family studies, social work, and health education. It could serve as a good resource to use along with other books that may be read.

While the book fosters a sociological understanding of death, it also helps readers deal with deaths they have encountered or will inevitably encounter.

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Abstracts of Current Literature

Family and Consumer Studies

The effect of age in the transition to parenthood: Are delayed childbearers a unique group?

Roosa, Mark W., (1988)
Family Relations, 3, 322-327.

The trend over the last few years has been for couples to delay marriage and childbearing. Women who delay childbearing often have a higher education, a higher income, more stable marriages, and higher occupational status. This study compares delayed and younger childbearers in their adjustment to parenthood with respect to the changes in marital adjustments, sex-role attributions and self esteem.

Each sample of normal and delayed childbearing years consisted of 32 families. A woman 28-37 years old was considered a delayed childbearer. The couple were interviewed and the results were used in the Dyadic Adjustment Scale. The results revealed that both groups experienced a drop in marital satisfaction. There was little or no evidence of a change in sex-role traits. It was predicted that delayed childbearers would have more masculine traits due to their success at work, but the study could not prove this. The results did not support the claims made about delayed childbearers.

This study was unable to prove that couples who wait to have their families are a distinct group in terms of personal and family variables. This group showed no difference from the younger couples with respect to their transition to parenthood, however, the study still questions whether delayed childbearers are a distinct group in other respects than those researched in this study.

Relationship with former in-laws after divorce: A research note

Ambert, Anne-Marie, (1988)
Journal of Marriage and the Family, 50, 679-686.

This study examines the effect that divorce has on the relationship a person has with their former in-laws. A total of 85 sets of ex-spouses were interviewed in the Toronto area.

The results indicated that, in general, the sample did not maintain a positive relationship with their former in-laws. This change usually occurred very rapidly, once the couple was separated. The spouse and in-laws generally felt ill-at-ease with each other. The women in the sample were more likely to maintain the relationship than were men, while custodial status of the children was even more important than gender. Remarriage of the spouse tended to have a positive effect on the ties with the ex-in-laws.

The most positive relationship with in-laws involved grandchildren and the custodial parent. In general, both parties want the relationship of the child-grandparents to be maintained for the benefit of all involved. A divorce of the parents should not interfere with the relationship of a child and his/her grandparents.

Stress and role satisfaction experienced by employed and non-employed mothers with young children

Crockenberg, Susan B., (1988)
Lifestyles: Family and Economic Issues, 9(2), 97-110.

The stress and satisfaction that women experience may be more reliant on the circumstances of their status and not just their employment status. This study examined the conditions that caused role satisfaction and stress in employed and unemployed mothers.

The 105 mothers, who had children under the age of two, were interviewed in a playroom with their child present. The questions dealt with employment status, social support system, choice of employment and role satisfaction. As expected, those mothers in higher family incomes were more often in their role by choice, had more social support and experienced fewer stressful situations. Role satisfaction of employed and nonemployed mothers was decided by social support and the role choice, not by the number of stressful events.

The psychological benefits of working for pay or working in the home depend on whether the mother has chosen to be in that role or has an obligation, and whether the child care and household responsibilities are shared to her satisfaction.

Baby sister/baby brother: Reactions to the birth of a sibling and patterns of early sibling relations

Vandell, Deborah Lowe, (1987)
Journal of Children in Contemporary Society, 19(3/4), 13-37.

For a young child, the birth of a sibling can be a major event in his/her life. This paper discusses the many different ways that a child is affected.

Immediate reactions for some children are physical and psychological, such as sleeping problems and temper tantrums. The older child often feels that the younger sibling received more attention from the parents and the child responds by misbehaving. As the relationship continues, the siblings may go through stages of being rivals or they may want to be caregivers and playmates.

Some studies show that when there is a strong parent child relationship before the birth of the sibling, the child is better able to handle the stress of a new addition to the family. The conflict is even less when the father takes an active role in caring for the older child. Studies also seem to indicate that the older the child is, the smoother the transition will be. The child has a positive attitude and is interested in the newborn. A child is able to adjust better when he/she has been prepared for the arrival of the sibling. The child needs to know what to expect and what their role will be.

The arrival of a sibling is a major event. The child and parents need to be prepared emotionally, so that it can be a happy occasion for the entire family.

Supplementary listing of articles

Predicting preschoolers' peer status from their playground behaviors. Ladd, Gary W., Price, Joseph M., Hart, Craig H., (1988) *Child Development*, 59(4), 986-992.

Effects of lecture style on learning and preferences for a teacher. Debra B., Hull, John H., (1988) *Sex Roles*, 18(7/8), 489-496.

When effort in school does not produce better grades: A family environment affects a school process. Dornbusch, Sanford M., Ritter, Philip L., (1987) *Family Perspective*, 21(4), 285-298.

Paternal absence and sex-role development: A meta-analysis. Stevenson, Michael, R., Black, Kathryn N. (1988) *Child Development*, 59, 793-814.

The Hutterites and fertility control. Ingoldsby, Bron B., Stanton, Mac E., (1988) *Journal of Comparative Family Studies*, 19(1), 137-142.

Deviance and the family: Where have we been and where are we going? Hagan, Frank E., Sussman, Marvin B., (1987) *Marriage and Family Review*, 12(1/2), 1-22.

Reviewed by
Linda Brefka, BA

Clothing/Textiles

The impact of technology on apparel designer training.

Sheldon, Gwendolyn J. (1988)
Clothing and Textile Research Journal, 6(4), 20-25.

The marriage of fashion with technology may be seen as a necessity for survival in today's competitive apparel market. Efficient use of computerized equipment can shorten production cycles as well as increase output, resulting in a larger share of the market for producers. The purpose of this study was to assess current and projected uses of computerized equipment in the design industry and to determine how these changes would require different skills of entry level designers. A questionnaire was mailed to 150 randomly selected American apparel manufacturers. There were three parts to the questionnaire: 1) to what extent were designers using computers, 2) what did they forecast as projected use of computer technology in five years and 3) what skill would be needed for entry level designers in five years. Results show greatly increased use and projected use of computerized equipment particularly for design and pattern making equipment. The skills cited as most needed for this new technology acceleration were improving communication between design and production. The major implication of these results is that colleges educating future apparel designers must prepare graduates to work not only in a creative capacity but also in a technological workplace.

Damage to continuous-filament yarns during weaving.

Chauhan, R.S. & Dweltz, N.E. (1988)
Journal of the Textile Institute, 79(1), 79-90.

The purpose of this study was to assess the effects of mechanical stresses on weft and warp continuous-filament yarns during weaving. Continuous-filament yarns as opposed to spun yarns were used because of their uniform assembly and high degree of regularity all along their length. Yarns were taken from woven fabrics and compared with the corresponding unwoven control yarn. Three different types of yarns were used which were all manufactured under identical conditions. Damage was assessed at the micro-level and many physico-chemical techniques were utilized. Even though the warp yarns experience greater stress and strain during weaving, filaments used as warp yarns show lower strength losses then similar filaments used as weft yarns. This unexpected behavior of continuous-filament yarns is explained on the basis of different kinds of stress imposed separately on the warp and weft during weaving and of the structural sensitivity of the continuous-filament yarn to these forces. The strain that the warp yarn experiences is fairly uniformly distributed throughout the length of the yarn and not highly localized at the cross-over points alone as in the case of the weft yarns.

Effects of window treatments in cold climates.

Lunde, Helen A. & Lindley, James A. (1988)
Home Economics Research Journal, 16(3), 222-233.

There is a growing concern for energy efficient features in a home due to the rising cost of energy sources such as natural gas and electricity. Heat loss through windows can be a significant factor in home heating costs. The purpose of this study was to compare different window treatments with regard to their ability to reduce heat loss through a double-glazed window under sub-zero winter weather conditions and then to see how these window treatments compared in terms of cost effectiveness. A full sized window was used in a laboratory setting and a total of 34 different window treatments were compared to the bare window control. Roller shades, roman shades, and films were found to significantly reduce heat loss while shades sealed to the window frame reduces heat loss by half. Draperies were not found to be significantly different from the bare window and combinations of window treatments did not improve effectiveness over a single treatment. The most cost effective window treatments were the polystyrene boards and the least cost effective were the draperies. Home constructed roman shades and polystyrene boards would be cost effective and provide significant reduction of heat loss.

Clothing for elderly and non-elderly men: A comparison of preferences, perceived availability, and fitting problems.

Hogge, Vivian E., Baer, Margaret & Kang-Park, Jikyeong. (1988)
Clothing and Textile Research Journal, 6(4), 47-53.

With consumers aged 65 and older becoming more numerous and being an important force in the marketplace there is a need to gain more knowledge of clothing needs and concerns of the elderly. The purpose of this study was to compare the clothing preferences of men between the ages of 30 and 50 with the clothing preferences of men over the age of 65. Data was collected using a clothing preference interview schedule and the participants consisted of 100 males (50 men, 65 and older, and 50 between 30 and 50 years of age) residing in Northern Colorado. More men from the elderly group were able to find garments in their preferred size and colour. Both groups had preferences for fibre content however, the older men had a greater acceptance of man-made fibres. The common fitting problem for both groups was sleeve length in shirts and jackets. The most important factor when purchasing clothing was fit. Design and style was a more important factor for the non-elderly group whereas durability and price were found to be the more important factor for the elderly group. These findings could be of interest to designers, apparel manufacturers and retailers etc., who are trying to further define their target market to meet the changing needs of the marketplace.

Supplementary listing of articles

Probate documents: American costume history research. Trautman, P. & Bartsch, D. (1988). *Clothing and Textile Research Journal*, 6(4), 26-37.

Assessment of the tactile properties of woven fabrics made from various types of staple-fibre yarn. Lord, P.R., Radhakrishnaiah, P. & Grove, G. (1988). *Journal of the Textile Institute*, 79(1), 32-52.

Sewing dynamics part I: Measuring sewing machine forces at high speed. Chowdhary, U. & Dickey, L. (1988). *Home Economics Research Journal*, 16(3), 183-195.

Farm families' attitudes and practices regarding pesticide application and protective clothing: A five state comparison. Rucker, M., Nelson, C., Olson, W., Slocum, A., Stone, J. (1988). *Clothing and Textile Research Journal*, 6(4), 37-47.

Reviewed by
MaryAnn McCreight, FD, BHe
MSc graduate student

Foods/Nutrition

A survey for quarg acceptance by Canadian consumers.

Sohal, T.S., Roehl, D. and Jelen, P. (1988)
Canadian Institute of Food Science and Technology Journal, 21, 312-315.

A consumer acceptance survey of Edmonton residents was undertaken to determine quarg acceptability. Quarg is an acid-coagulated, flocculated casein with a high moisture content. It is usually white or slightly yellowish, smooth, and spreadable. It tends to be used in Europe as cottage cheese or yogurt would be used in Canada.

Freshly prepared samples of plain and fruit flavored quarg were delivered to 596 households along with a questionnaire. Products were evaluated using separate, labelled six-point scales ranging from "like very much" for appearance, flavor, and overall quality. The questionnaire also solicited general comments and information regarding previous exposure to quarg and willingness to purchase the product.

Responses were received from 223 households for a response rate of 37.4%. For the plain quarg, favourable responses for appearance, flavour, and overall quality were received from 67.9%, 50.7%, and 51.6% of respondents, respectively. Similarly, favourable responses for appearance, flavour, and overall quality of fruit flavoured quarg were received from 69.6%, 70.7% and 69.6% of the sample. The preference for fruit flavoured quarg was statistically significant for all three parameters. General comments received indicated favourable impressions of the smooth texture and overall quality of the products. Even though the majority (77%) of respondents had never consumed quarg before, interest in purchasing the product was indicted by 66% for plain quarg and by 76% for fruit flavoured quarg.

Parental counselling compared with elimination of cow's milk or soy milk protein for the treatment of infant colic syndrome: A randomized trial.

Taubman, B. (1988).
Pediatrics, 81, 756-761.

In a randomized clinical trial, treatment of infant colic syndrome by counselling parents concerning more effective responses to infant crying was compared with the elimination of soy or cow's milk protein from the infant's diet. Parents of the eleven infants in study group 1 were instructed concerning how to respond to infant crying. Diet changes for the ten infants in study group 2 consisted of either the introduction of a casein hydrolysate formula or, with breastfed infants, the elimination of milk and milk products from the mother's diet. In Phase 2 of the study, group 2 subjects were returned to their prestudy diet and parent received the same counselling given earlier to group 1 parents.

In Phase 1 of the study, group 1 achieved a statistically significant decrease in crying time, dropping from 3.21 ± 1.10 h/day to 1.08 ± 0.70 h/d. Group 2 infants also achieved a significant decrease in crying, falling from 3.19 ± 0.69 h/d to 2.03 ± 1.03 h/d, a level still almost twice the normal rate. The decrease in those receiving counselling was greater and occurred more quickly than in those treated by dietary change alone. After reintroduction of food proteins and receipt of counselling in Phase 2, Group 2 infants further decreased their crying to 1.19 ± 0.60 h/d. No infant in this group who had shown improvement upon dietary change experienced any increase in crying when re-exposed to cow's milk or soy protein. These data point to the possibility that with infant colic syndrome, crying may be the result of parental misinterpretation of cries and not a result of milk or soy protein allergy.

Saccharin and aspartame: Are they safe to consume during pregnancy?

London, R.S. (1988).
The Journal of Reproductive Medicine, 83, 17-21.

Currently available information of the safety of saccharin and aspartame was reviewed and recommendations made for their use during pregnancy.

Saccharin, a non-nutritive, xenobiotic sweetener, is absorbed slowly by the body. It is not metabolized and is rapidly excreted by the kidneys. In spite of the multi-generational, chronic high-dose studies with rats that indicated some carcinogenic effect of saccharin, to date no biochemical or epidemiological studies have demonstrated carcinogenicity in humans. Saccharin in known to cross the placenta. It is cleared very slowly by the fetus and appreciable fetal levels may still be present once maternal levels have become negligible. The author points out that despite its relative carcinogenic weakness, exposure to saccharin both *in utero* and *ex utero* may contribute to increased neoplasms. Based on the available evidence and the report of the Council of Scientific Affairs of the American Medical Association, the author concludes that saccharin should not be recommended for use during the preconceptional and periconceptional periods.

Aspartame is a methyl ester of the amino acids phenylalanine and aspartate. It is hydrolyzed in the body to methanol and the two amino acids. It seems that it is virtually impossible for humans to ingest aspartame in quantities large enough to elevate maternal plasma aspartate or methanol levels to the point where transfer of significant quantities to the fetal circulation would occur. It is the phenylalanine component which causes the most concern. In normal women, or those heterozygous (carrying one recessive gene) for phenylketonuria (PKU), phenylalanine from aspartame is minimal as compared to that contributed by dietary protein. Women who are homozygous (carrying two recessive genes) for PKU, need to consider aspartame as an additional source of phenylalanine and restrict its use accordingly. Overall, studies indicate that aspartame is safe to consume during pregnancy for the normal women and the woman heterozygous for PKU.

Metabolic effects of repeated weight loss and regain in adolescent wrestlers.

Steen, S.N., Oppliger, R.A. and Brownel, K.D. (1988). *Journal of the American Medical Association*, 260, 47-50.

This study investigated the hypothesis that repeated cycles of weight loss and retain in a group of 27 adolescent wrestlers would be associated with reduced energy requirements. The high school wrestlers were classified as either cyclers or noncyclers based upon their weight loss history. Resting metabolic rate (RMR) was measured by indirect calorimetry and body composition was determined using six skinfold measurements. The two groups of wrestlers did not differ in age, weight, height, surface area, lean body mass, or percent body fat. There were significant differences between cyclers and noncyclers for RMR (154.6 vs. 177.2 $kJ/m^2/h$; 4.6 vs. 5.5 kJ per kg of lean body mass per hour). For resting energy expenditure, there was a 14% difference between the cyclers and the noncyclers (6631.8 vs. 7702.8 kJ/day). Thus, cyclers required 1071 kJ less than noncyclers under resting conditions. It appears from these data that wrestlers with a history of weight cycling have lower energy requirements and lower RMRs than noncyclers. Further investigation is needed to determine the reason for this difference.

Energy intake and other determinants of relative weight.

Romieu, I., Willett, W.C., Stampfer, M.J., Colditz, G.A., Sampson, L., Rosner, B., Hennekens, C.H. and Speizer, F.E. (1988). *American Journal of Clinical Nutrition*, 47, 406-412.

The relationship between obesity and energy intake was investigated in a sample of 141 women aged 34-59 years. Participants completed four 1-week food records over the period of one year. Questionnaires were completed giving information regarding physical activity and body measurements. For the sample, Body Mass Index (BMI; $weight/height^2$) ranged from 17.6 to 39.2, with a mean of 24.0 ± 9.7. Total energy intake ranged from 909 to 2518 kcal/day with a mean of 1622 ± 332 kcal/day. Results showed a weak inverse association between relative weight and energy intake. Energy intake and physical activity were positively related. Obese women tended to be older, exercise less, and drink less alcohol than nonobese women. As well, obese women reported higher intakes of total fat. This positive correlation between obesity and calorie-adjusted total fat intake was found to be principally due to saturated fatty acid intake.

The authors concluded that there is a need to control for confounding variables such as physical activity, alcohol consumption and cigarette use, when studying diet and obesity. As well, these results suggest that an increased fat intake, especially of saturated fats, may be associated with overweight independent of total energy intake.

Supplementary listing of articles

Parental health beliefs may cause failure to thrive. (1988). *Nutrition Reviews*, 46, 217-219.

Nutrition knowledge, attitude, and food services behavior of Canadian military cooks. Burton, B.A. and Sabry, J.H. (1988). *Journal of the Canadian Dietetic Association*, 49, 173-178.

TV ads on Saturday morning children's programming: What's new? Cotugna, N. (1988). *Journal of Nutrition Education*, 20, 125-127.

Coffee consumption and serum cholesterol in the hypertension detection and follow-up program. Davis, B.R., Curb, J.D., Borhani, N.O., Prineas, R.J., and Molteni, A. (1988). *American Journal of Epidemiology*, 128, 124-136.

Dietary guidelines: International and national perspectives. Olson, J.A. (1988). *Nutrition Reviews*, 46, 236-240.

Development and use of a mobile nutrition education center. Pelican, S., Campbell-Lindzey, V.S., Achterberg, C. and Shannon, B. (1988). *Journal of Nutrition Education*, 20, 173-179.

Reviewed by
Laurie A. Wadsworth, MSc

New Developments

Compiled by Ann Scott

. . . In Ideas

Reducing Occupational Stress

In recent years, there has been a great deal of research carried out on stress, resulting in much difficulty in sorting out the many interpretations.

Ron Labonte identified four ways in which stress has been viewed by researchers; as an environmental condition, as the appraisal of environmental conditions, as the body's response to stressors, and as an interactive construct emphasizing the relationship between personal characteristics and environment. From these interpretations of stress, there are two principal theories of occupational stress. The person/environment fit model maintains it is the fit between the person and the job that is important rather than the job itself. Whereas the job demand/control model maintains that elements inherent in working conditions, specifically the amount of control workers have over demands placed upon them, determine whether or not occupational stress becomes an issue.

Labonte suggests that these two models can be applied to workplace stress management strategies. By defining stress as a personal, rather than environmental concern, most industry programs emphasize individual rather than collective coping strategies. However, studies have suggested that stress management treats only the symptoms leaving the causes untouched. Social support within the workplace is now viewed as a positive force in reducing health risks caused by stress.

As a result, it is now believed that stress programs should include social support, critical analysis and collective actions to improve the workplace along with personal counselling and coping techniques.

Source: Labonte, Ron. (1988). Occupational stress management: New (and better?) strategies. At the Centre (The Canadian Centre for Occupational Health & Safety), XI(2).

At Home Antidotes

Every year many children under the age of five swallow various poisons left within their reach in the home.

In case of emergencies involving poisons, Roger W. Miller recommends fast action in contacting your local poison control centre, doctor, or hospital emergency room. In some cases, hospitalization may be necessary.

In addition, Miller suggests there are two antidotes that can be kept at home to help counteract poisons; syrup of ipecac and activated charcoal. These can be purchased without prescription at drug stores but must not be used without first contacting a medical professional.

Syrup of ipecac promotes vomiting to rid the body of the swallowed poison but should not be used when the poison is caustic or contains petroleum solvents or turpentine. The dosage recommendations should be followed carefully since overdosing can cause serious health hazards.

Activated charcoal has the ability to bind with other chemicals. When swallowed, it absorbs poisons from the gastrointestinal tract and prevents the poison from getting into the bloodstream and the rest of the body. Activated charcoal has been officially recognized as an antidote only during the last 10 years.

Miller recommends that even in cases where you are sure you can treat the problem at home, it is a good idea to take the victim to the hospital as soon as possible.

Source: Miller, Roger W. (1988). Punching Back at Poisons. *Canadian Consumer, 18*(5).

Lower Roasting Temperatures

The results of a recent study on beef roasting methods has confirmed that today's leaner beef is best roasted at lower temperatures.

Beef Information Centre recommends roasting tender cuts from the rib and loin at 325 F (160 C) and reducing the oven temperature to 275 F (140 C) for medium tender roasts from the round, rump and sirloin tip.

The study, conducted by the Food Development Division, Agriculture Canada, evaluated the effects of various cooking methods and temperatures on small, lean beef roasts. Sensory panelists judged roasts on tenderness, juiciness, and flavor. Roasts cooked at lower temperatures had less cooking losses, and were judged to be juicier and more tender than roasts cooked at higher temperatures.

In an effort to increase consumer awareness of best beef cooking methods, the Beef Information Centre has designed generic cooking stickers for use on all beef cuts. Market research has shown that consumers want ready access to cooking information, preferably at the meat counter. These stickers, available to retailers across the country, outline simple steps for roasting, broiling, braising and stewing.

Source: News Release. (1988, September). Beef Information Centre, 590 Keele Street, Suite, 422, Toronto, Ontario M6N 3E3.

. . . In Trends

Water Testing Service

During the Canadian Consumers' Association of Canada's one-year-old Water Analysis and Evaluation Service, harmful quantities of lead have shown up once in more than 200 samples of water.

"By far the majority of water samples sent to us do not have substances in them that would pose a health risk," said CAC home economist Gail Bonus. "Most of the time we provide people with peace of mind knowing that their water is safe."

CAC recently expanded its water analysis and evaluation service to include 94 different substances. The service tests for metals such as lead or arsenic and pesticides such as PCBs. The water's physical or esthetic characteristics (hardness and turbidity for example) are also examined. The written evaluation returned to the consumer contains information on which substances exceed Canadian or American health guidelines and explains what the health implications are. CAC also lists the methods available to filter out or otherwise eliminate the undesirable substances. No similar service exists in Canada.

"We're really fulfilling a need with this service at a price consumers can afford," said Bonus. "Municipal water testing takes place only at the point of distribution — the pumping station. Our service can tell consumers what the water has picked up on its way to them. Testing of private wells is done by the local health department, but only when they are first dug. After that, testing is up to individual homeowners. Even if your water doesn't smell, taste, or look contaminated, there is always the possibility it may contain harmful amounts of various elements."

For more information: Contact Gail Bonus, CAC Home Economist, Consumers' Association of Canada, Box 9300, Ottawa, Ontario K1G 3T9, (613) 723-0187.

Study Surveys Retail Distributors

Agriculture Canada has just completed a National Survey of Retail Distributors. The study, which surveyed independent and chain supermarket distributors, identifies consumer buying trends and consumers' future needs.

The first trend cited by the retailers was an expected increase in floor space allotted to produce, meat, and poultry, delicatessen and baking sections. The increase in fresh produce is believed to be due to the fact that consumers are eating more fresh fruits and vegetables and are more health-conscious.

The study indicated a growing demand for leaner meats. This included a projected increase in poultry, fish and seafood consumption and an increased demand for the ultra-trim cuts of meat.

Retailers indicated that 54 per cent of the produce they carry was from the United States, 36 per cent from Canada and 10 per cent from other countries. Due to the fact that the shelf life of American produce is often extended because the product is force-air cooled, while Canadian produce is shipped directly from local producers, the American produce yields a greater return for the retailer.

With further improvements by Canadian producers, it is projected that Canadian produce could capture a greater share of the market.

Fruits and vegetables are becoming important in the frozen food sections as well. More space is being devoted to frozen fruit juice, gourmet desserts, and microwaveable vegetables and meals.

The survey also predicted that in the next five years, medically-related factors such as salt-free, high-fiber, sugar-free, and low-fat will rank higher than nature-related factors such as preservative-free, additive-free, natural, and organic. It is expected that information about the nutritional value of products will become increasingly important to consumers.

Source: Preliminary Findings of the National Survey of Retail Distributors. (1988, Spring). *FOOD, ETC.*, Food Development Division, Agriculture Canada, Ottawa K1A 0C5.

Bank Service Charge Issue

The move by banks and trust companies to voluntarily eliminate or lower some of the more unfair or offensive bank charges and to put in place methods for consumer redress is good news, says the Consumers' Association of Canada. But there is still a need for legislation which would ban certain charges and which would also require the banks to provide service charge information in a standardized form.

"We're pleased that certain methods of consumer redress will now be available to banking customers and that the disclosure requirements under the Bank Act will be strengthened," said CAC president Ruth Robinson. "Account holders will have more information about bank charges and a place to go with complaints. Still, the government has to do more for consumers."

CAC wants legislation which would force the banks to provide service charge information in a standardized form so that consumers will be able to comparison shop. CAC is also calling for a legislative ban of the particularly unfair and offensive charges.

Some examples are the chargeback levied on those who are victims of NSF cheques and the charges for maintaining an account with a low balance. This is generally perceived to be unfair to small depositors. "While the banks and trust companies have voluntarily agreed to lift those charges, a legislative ban would give consumers the necessary protection," said Robinson.

CAC had earlier applauded the House of Commons Standing Committee on Finance and Economic Affairs for taking a tough stand on the bank service charge issue. The committee answered many of the concerns raised by CAC during public hearings.

"The committee's report addressed all our concerns," said Robinson. "Unfortunately, the recent voluntary/legislative actions don't do as much."

. . . In Publications

Food Newsletter

Issued six times yearly to more than 2,000 subscribers across Canada, *The Foodletter,* specializes in reviewing Canadian cookbooks. This 8-page publication is now in its third year.

In addition to cookbook reviews, *The Foodletter* includes several recommended recipes from featured cookbooks, a Cook's Corner, a Microwave Corner, and a Recipe Exchange. Foodletter staff look for recipes that are quick and easy to prepare, use a minimum of pre-packaged ingredients, are nutritious, with some special occasion and entertaining dishes.

The Foodletter contains no paid advertising and welcomes new cookbooks from publishers or authors for possible review.

For a sample copy: Send $1.00 to cover postage and handling to: *The Foodletter,* Dept. HE, Box 363, Hanover, Ontario N4N 3L9. A one-year subscription (6 issues) is $10.00.

Information on Food

Food Insight is a quarterly newsletter sent free of charge to journalists and health professionals by the International Food Information Council. This council is an association supported by the food and beverage industry to provide objective, scientific information on foods, food ingredients and nutrition.

For further information: Write to the International Food Information Council, 1331 Pennsylvania Avenue, N.W., Suite 717, Washington, D.C. 20004, (202) 662-1280.

Child Care Initiatives Fund

A handbook is now available that outlines the types of projects eligible for funding under the Child Care Initiatives Fund of the Department of National Health and Welfare.

The guide provides information concerning eligibility, application requirements, project limitations, and an explanation of the submission and approval procedures which must be followed by the applicant.

Available from: The Minister of Supply and Services, Canada, 1988 Cat. No. H74-20/1988.

Guide for Cooking Beef

A new cuts chart, along with selection tips and general cooking instructions, is included in a new booklet produced by the Beef Information Centre. *Canadian Beef — Experience the Quality* is available at retail stores or write to Beef Information Centre for a free copy.

To obtain a copy: Write to Beef Information Centre, 590 Keele Street, Suite 422, Toronto, Ontario M6N 3E3.

The Body Test

The Body Test is a 23-minute English educational video of the Canadian Dietetic Association. The main theme of the video is Healthy Weight and how to achieve it.

The promotion of Healthy Weight and the use of the Body Mass Index (BMI) measurement are long-term goals. This video is a first of its kind in promoting these messages.

The challenge of the Healthy Weight approach is to promote a greater acceptance for a variety of body shapes and sizes. Healthy weight means changing the focus from weight and the number on the scale to encouraging healthy eating habits, regular physical activity and personal well-being.

The promotion of Healthy Weight for all Canadians is an important issue. Considerations must be given to the dangers inherent in increasing the preoccupation with weight that exists in our society. This video, through a process of self-evaluation, is a first step.

The Body Test video asks 20 questions about diet, exercise, lifestyle, self-image, and the new Healthy Weight concept. This video will make you stop and think about your attitude towards your body and what you are doing to it. At the end of the video you will be able to calculate your body Risk Score.

The Body Test video is an excellent self-help and educational tool for both adults and teenagers. It comes complete with a 24-page instruction booklet, which includes; score card, explanation and rationale for the scoring, BMI nomogram (a simple way to determine BMI), Silhouette Test, background information on Healthy Weight, and resource list. This package would be of interest to health professionals, educators, fitness instructors and anyone interested in weight.

To order: Send cheque or money order payable to: *The Body Test* Video, Box 215, Station E, Toronto, Ontario M6H 4E2. (VHS or Beta — $39.95, 3/4" format — $89.95, Shipping and handling — $4.00 each tape. Ontario residents add 8% PST).

. . . In Products

Fast Foods Rated

The August issue of *Canadian Consumer* rated fast foods for fat and salt content. While any fast food meal is too high in fat and some are too high in sodium, there are some which are nutritionally better than others. The magazine rated eight national outlets and found the most nutritious burgers were from Dairy Queen, Harvey's and Wendy's. Burger King Chicken Tenders, Harvey's Chicken Fingers and Kentucky Fried Nuggets topped the chicken meals. As for fries, they were all about equal except for those from Kentucky Fried Chicken and Harvey's which had a higher fat content than the others.

Source: News Release. (1988, August 3). Consumers' Association of Canada, Box 9300, Ottawa, Ontario K1G 3T9.

Infant Formulas Improved

While breast feeding is recognized as the preferred method of feeding infants during the first year of life, there are many circumstances in which bottle feeding is desired. The currently available infant formulas are good alternatives as indicated in an article in the Spring edition of *In-Touch.*

In keeping with the growing understanding of infant nutritional needs, many infant formula manufacturers have developed products that closely resemble the nutritional composition of human milk. They have switched to all-vegetable fat blends, have altered the mineral ratios and changed the type of protein used in formulas. The trend is to use vegetable oils, such as soy, coconut, palm, corn, and safflower oil as the fat source, because polyunsaturated fats are less likely to lead to clogged arteries. Although SMA and Nursoy, both Wyeth products, continue to use some animal fats in their products, their final fat blend most closely imitates that in breast milk.

One of the major differences between breast and cow's milk is in the protein mix. In human milk, the major protein is whey, while in cow's milk it is casin. Nutritionists believe that whey is easier for small infants to digest, and as a result of the major formula manufacturers produce a whey-based formula. The exceptions are Unilac and Milumil.

Health and Welfare Canada legislation governs the level of vitamin and mineral fortification in infant formulas in order that most of the infant's nutrition needs are met by the formula. The one exception is iron, which is naturally low in both human and cow's milk. However, Enfalac, Similac, SMA and Milumil have iron-fortified products for infants who are not yet receiving iron from infant cereals.

More sophisticated alterations in some formulas involve modifying the mineral and protein mix to lower the renal solute load. This reduces the work load the infant's immature kidneys must be subject to.

For babies with allergies to cow's milk protein, an intolerance to the sugar lactose, or whose parents prefer a vegetarian product, there are several soy-based formulas — Isomil, Nursoy, Prosobee, and Soyalac.

Currently available infant formulas have proven to be good alternatives which despite their varied compositions, promote normal growth and development in infants.

Source: News Release. (1988, July). Infant Nutrition Institute, 5650 Yonge Street, 16th Floor, North York, Ontario M2M 4G3, (416) 226-5757.

A Guide for the Used Car Buyer

The June issue of the *Canadian Consumer*, published by the Consumers' Association of Canada, included excerpts from the Canadian Automobile Association's *Autopinion '88 Annual Guide*. This guide describes how 1983 to 1987 cars, trucks and vans stack up according to the experience of their owners. More than 22,000 consumers responded to a survey about frequency of repairs for their vehicles, general vehicle performance, whether they would purchase the same vehicle again and overall satisfaction level.

The highlights of the survey included the Toyota Camry (1985-87) winning the CAA's 1988 Used Car Performance Award. It was also determined that on the average, newer vehicles are driven further than older ones and consumers who use an independent garage rather than a dealer for vehicle repairs are more satisfied with the outcome.

Source: News Release. (1988, July 5). Consumers' Association of Canada, Box 9300, Ottawa, Ontario K1G 3T9.

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Michelle Marcotte

On the Job

Market Development Specialist for Food Irradiation

Michelle Marcotte

At times when I am overwhelmed by the frustrations of commercializing food irradiation, I remind myself that the first gas company home economists faced similar challenges years ago and succeeded. Like me, they were selling an energy source through the use of new equipment, there were safety questions, new methodology and consumer education challenges.

I also remind myself that when they had successfully accomplished their goals, many of their positions dried up behind them. I intend to try to learn from these lessons.

Atomic Energy of Canada Limited-Radiochemical Company, hired me in February 1987 after over one year of interviews. Getting this job was a tough sell on my part. I really wanted the job; commercializing food irradiation could be the challenge of anyone's career. They had never hired anyone with my background before, in fact I doubt if there is another home economist in the entire radiation processing industry world wide, maybe in the entire nuclear industry. But I am not viewed as a home economist in this engineering company, but rather as a marketing specialist, a food specialist, a woman, a marketing communications planner, and a consumer educator. In that order too, I'm certain!

We have a very small team of two engineers, a vice-president (who also has other concerns), one support staff, and myself, marketing and selling food irradiators world wide. Since we are a small organization I have responsibilities that I might not otherwise have. I prepare the marketing plan outlining the target food industries in each world region and how to approach them, select and give priorities to attendance at trade shows, plan and execute advertising, outline research requirements, and carry out a few consumer education activities. I do several seminars and lectures each year to various groups.

I handle marketing correspondence and inquiries, giving technical information on the application of food irradiation to food companies and ball park estimates on the equipment that we feel is most suited to the client on first glance. Incidentally, those who think this is probably not too time consuming since food irradiation seems to only interest outspoken activists in this country, should remember that in this job we are like ladies of the night; everyone wants to know what we can do for them but few want to be seen talking to us! There are now 25 industrial irradiators irradiating food in 19 countries. Most of these were sold by our Company, and we supply Cobalt-60 to most of the others as well. We are selling at least one food irradiator each year.

I am also currently coordinating three major pieces of research being carried out in two research sites with the help of an international consultant. My role is administrator, bureaucracy sifter, strategist, produce procurer, mother, nag, truck driver, and "muscle-man."

I supervise the work of summer students and provide guidance to junior team members, as they develop.

Considering the very long time span between first contact and sale, I often view my job as bird-dogging. I try to flush out the better prospects and since this technology has more potential applications than are currently known, I also see myself as the one who must gather the fire-fly ideas from various sources and make light bulbs out of them.

My previous position at Agriculture Canada's Food Development Division (formerly Food Advisory Division) gave me much-needed insight and experience in marketing communications planning, media communications, the food industry, commodity marketing systems, applied research direction, consumer education methods, teamwork and bureaucratic infighting. I have appreciated all those skills.

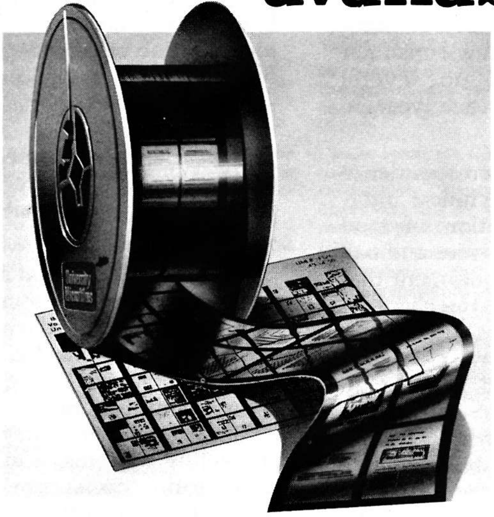
When I first came to this Company I was amazed to find that I could work as harmoniously with men (engineers at that) as I previously did with my female colleagues at Agriculture Canada. I both admire and am frustrated by the way engineers approach our problems. We have had some disagreements, but thus far they have taught me more than I have taught them. My colleagues here are extraordinarily intelligent, hard working, and able. I still consider myself very fortunate to be working with them.

It has taken my husband over one year to adjust to the changes this job brought (it took my two children much less time). I now travel about one week per month although each trip is usually less than one week. I have had to work very hard learning this technology and, learning about the equipment. I put in many more hours than previously. On the other hand, I negotiated a larger salary than I received at Agriculture Canada. (In that instance, not being thought of as a home economist was advantageous).

So from several perspectives, this is the toughest challenge I have ever faced. It is fortunate then, that I believe in what I'm doing, that I think the technology is valuable, that my contribution will make a difference, and that it will be worthwhile for me personally. ☐

Note: AECL — Radiochemical Company has changed it's name to:
Nordion International Inc.,
447 March Road,
Ottawa, ONT

This publication is available in microform.



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